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THE PRINCIPLES AND ARITHMETIC OF FOREIGN EXCHANGE

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FIFTH EDITION

LONDON

MACDONALD & EVANS

8 JOHN STREET, BEDFORD ROW, W.C.1

1929

Made and Printed in Great Britain by
UNWIN BROTHERS LIMITED, LONDON AND WOKING

PREFACE

It is a source of much gratification to the author that the extensive demand for this book has afforded him an opportunity of effecting a thorough revision of the work with the object of rendering it of still greater service not only to students but also to those who are engaged in the daily practice of Foreign Exchange.

In the preparation of the Fifth Edition, the text has been entirely rewritten and all the Arithmetical calculations have been revised and brought up-to-date. Several years' experience in teaching Foreign Exchange to many thousands of students has convinced the author that an early acquaintance with the main features of the Purchasing Power Parity Theory is essential to a clear understanding of the fundamental problems of Exchange and Currency, and, in particular, those which have troubled the world since the Great War. Accordingly, the presentment of Foreign Exchange theory in this edition will be found to embody a distinct departure from the orthodox text-book treatment of the subject, but the author ventures to hope that the early introduction of the purchasing power concept, in spite of its acknowledged intricacy to the beginner, will make the reader's later progress in the subject much less difficult.

More detailed consideration is given in this edition to the structure and organisation of the principal Foreign Exchange Markets, the London Money Market, and the London Bullion Market, while Letters of Credit have been accorded a measure of attention more commensurate with their great modern importance to the business community. Moreover, the volume will be found to contain a comprehensive examination of the means whereby both temporary and permanent

equilibrium of the Foreign Exchanges and of the National Current Account are achieved—a feature which the author believes to be unique in a textbook of this kind.

The author's thanks are due to many readers and business associates for a number of valuable suggestions for the improvement of the volume, and he wishes, in particular, to acknowledge his indebtedness to Mr. H. E. Evitt, Cert. A.I.B. (of Messrs. Harlow & Jones, Ltd., Foreign Exchange Brokers), for much helpful advice and assistance.

September, 1929

S. E. T.

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THE PRINCIPLES AND ARITHMETIC OF FOREIGN EXCHANGE

CHAPTER I

THE THEORY OF THE EXCHANGES

FOREIGN EXCHANGE is that branch of the science of Economics in which we seek to determine the principles on which the peoples of the world settle their debts one to the other. If all the nations used the same kind of money, for example, sovereigns or dollars, our task would be a fairly simple one, for an exchange between two nations, or between two individuals of different nationality, does not differ fundamentally from an exchange between any two citizens of the same State. Complications arise, however, from the fact that every self-respecting nation aims at having a distinctive money or currency unit of its own, differing from the moneys of other nations, not only in name but also in design, size and intrinsic worth. America amasses her enormous wealth in terms of the "almighty" dollar, while Spain spends hers in terms of the "peseta". We in Britain pin our faith and base our currency system on the solid foundation of the gold sovereign, whereas the people of Spain and Portugal are as yet content to value their holdings of this world's goods in terms of the unstable paper peseta and escudo. Chinese merchants buy and sell their goods, not for a certain number of coins of gold or of silver, but in terms of a *weight* of silver known as the *tael*, the metallic content and worth of which vary in every province,—indeed in almost every district.

There would be complication enough if the nations of the world were content merely with this endless variety, but still further difficulties arise from the fact that the same name is sometimes used by different States for monetary units of entirely different form and

value. The gold *dollar* of the United States is the dignified head of quite a large family of monetary units bearing the same name, including the silver dollars of Hong-Kong, of Indo-China and of Mexico, and the gold dollars of Cuba and of British Honduras. Similarly, the Argentine *peso* has several relatives of similar name but of varying form, size and importance, including the pesos of Chile, Colombia, Uruguay and Salvador.

The Central Problems of Foreign Exchange.—The exercise of a little imagination will at once indicate some of the problems which must result from the existence of such a variety of currencies. Brown of London who buys £100 worth of goods from Black of Liverpool can settle his debt quite simply and quickly by the despatch to Black of a cheque drawn on his bank. Brown could, of course, send Black £100 in gold sovereigns, or he could send a banker's draft. But if Black knows Brown sufficiently well, he will have no hesitation in accepting a cheque for the amount due. The cheque is paid by Black into his account at his own bank, and it is thereafter collected and paid through the Bankers' Clearing House. Payment of such internal debts as this is thus effected, without the passing of any actual coin or currency notes, merely by the transfer of funds from an account in the books of one bank to an account in the books of another bank.

But suppose for a moment that Mr. Black of Liverpool becomes Monsieur Noir of Paris. Monsieur Noir buys and sells in terms of French *francs*, and does not in the ordinary course expect to receive payment in terms of pounds sterling. Accordingly Brown, who has received from Paris goods which he values at about £100, is faced with the following problems:

1. How many francs must be paid to Monsieur Noir in Paris, so that he will be satisfied that the payment represents the value of the goods and so that Brown shall pay that value and neither too much nor too little? What is the equivalent of £100 when it must be paid in francs in Paris, and how is this equivalent determined at any particular time? In other words, *on what basis do pounds exchange for francs?*
2. *How and where can the necessary francs be obtained in exchange for pounds, and how are they to be paid over in Paris to Monsieur Noir?*

These are the main problems which we shall attempt to solve in the following pages, and as we proceed we shall find that Foreign Exchange, which investigates the principles on which nations settle

their debts, resolves itself into an investigation of the *principles which govern the exchange of the money of one country for that of another.*

The Complexities resulting from Nationalism.—The subject is, of necessity, rendered very complex by the varying political, economic and psychological conditions which exist in a world composed of so many national economic units. While one nation decides to adopt an entirely new currency unit, another seeks to give its existing unit new vitality by changing its form, name and value. Another deludes itself with the idea that it is making painful sacrifices to maintain an old-established monetary standard, when, in fact, it is gradually but surely adopting a standard of quite a different type. Some peoples devote their whole energy and scientifically applied financial knowledge to the maintenance of stable, universally acceptable media of exchange, whilst others appear to content themselves with unstable, ever-fluctuating currency bases.

The Practical Tests of Theoretical Principles.—Moreover, in Foreign Exchange, probably more than in any other branch of Economic Science, theoretical principles are inextricably mingled with practical problems. In no other branch of social investigation are the conceptions of the theorist put to sharper, more rigid tests of practice and experience. The mechanism and organisation of Foreign Exchange must, of necessity, be constantly modified to keep abreast with the march of financial and economic progress, and theory must, in its turn, keep abreast of such changes in practice, and give due weight to new factors as they arise. Hence, as we endeavour to explore the underlying principles, we are compelled to devote considerable attention to the essentially practical side of the subject, and by so doing, we are enabled to obtain not only a more comprehensive grasp of the theory underlying the exchange of world currencies, but also a right understanding of the practical methods by which international monetary transfers are effected.

The Expression “Foreign Exchange”.—The term “Foreign Exchange”, like many other important expressions used in Economic Science, is one which is unfortunately capable of several meanings. For purposes of this book, we have defined Foreign Exchange as that branch of Economic Science which deals with the principles underlying the exchange of world currencies. From a purely practical standpoint, the term “Foreign Exchange”—and the plural expression “Foreign Exchanges”—connotes the *mechanism* or *organisation* whereby world currencies exchange, the *system* or the *business* of

exchanging currencies, i.e., all those operations and transactions which spring from the settlement of international debts contracted in different moneys.

But, as we shall see later, these terms are very frequently used in the daily Press to mean the actual *ratios* or *rates* at which currencies exchange one for the other, in which sense it is more correct, and certainly less confusing, to refer to the *Rates of Exchange*. Thus it is not at all unusual to find the expression "Foreign Exchange" used in the sense of "foreign money". During recent years our newspapers have referred frequently to the orgy of speculation "in foreign exchange", by which, of course, they mean speculation in foreign currencies or foreign moneys. In the same sense, central banks are said to hold part of their assets "in foreign exchange" and to have the right of converting their notes into "foreign exchange", the meaning, in both cases, being *rights to money* in foreign centres. Again, banks in London and other financial centres are said "to buy and sell foreign exchange", by which is meant that they buy and sell foreign currencies in the form of bills of exchange, drafts and bank notes payable in other countries.

How Foreign Exchange Arises.—Foreign Exchange arises from international commerce, which comprises the interchange of commodities or services between peoples, or, in other words, the transfer of wealth in all its forms from one country to another. No country exists in complete isolation from the rest. Manufacturing nations draw food-stuffs and raw materials from countries where they are economically produced, and these, in turn, depend upon the manufacturing nations for clothing, machinery, and other manufactured goods. "England to-day feeds herself in her factories, and Canada clothes herself in her fields."* British ships carry Welsh coal, or Bradford cloth, or Manchester cottons, to Buenos Aires or Rio, and other British ships leave those ports laden with meat or cereals to feed the miner and the artisan of Yorkshire and Lancashire. We call this ceaseless interchange of goods between peoples buying and selling; and buying and selling gives rise to debts.

But international debts arise in ways other than through the buying and selling of goods, although that is by far the chief cause. The services rendered by the British Mercantile Marine in carrying goods to other countries create debts which must be paid to our carrying companies by the country importing the goods. When a foreign country contracts a loan in London, say, for the purpose of purchasing

* *The Economic Foundations of Reconstruction*, by Alfred Milnes.

new railway equipment made in Leeds, the interest on the loan is a half-yearly debt due to London. A broker on the London Exchange, selling for a Paris holder, e g, £1,000 of our 4 % Funding Loan, is instrumental in creating a debt to the extent of his contract note, due from London to Paris. Similarly, if he buys the same stock for a Paris investor, a debt arises due from Paris to London, but there is also a recurring debt due by London to Paris, for interest on the investment, so long as the stock is held in Paris. The foreign tourists who flock annually to this country, and cash Letters of Credit addressed to our bankers here, all create so many debts, small perhaps individually but in the aggregate amounting to a very large sum, due to London from the countries of their domicile. So, too, the British tourist, changing a £50 note of the Bank of England in Rome to pay for a month's tour in Italy creates to that extent a debt due from London to the Italian money-changer. Thus in these, and in many other ways which will be explained hereafter, the countries of the world are continually incurring debts one to the other, and it is the discharge of these debts which brings into play what are compendiously called the Foreign Exchanges.

The Settlement of International Debts.—The settlement of the debts which thus arise must be effected in a way satisfactory to both debtor and creditor. The obvious, but far from the simplest, way to do this would be for the debtor to transfer to his creditor an amount of gold equal to the amount of the debt, for gold is a universally recognised medium of exchange and standard of value which a creditor in any country is perfectly satisfied to accept. Gold functions as an international currency, and the only criterion of its use for the payment of a debt is that both parties shall be agreed as to what weight of gold constitutes a fair payment. It was on this basis that settlements between two countries were effected in the early days of international trade. The precious metals were sent to and fro in payment of international indebtedness and their value was determined primarily by weight.

A little consideration will show that this method could be adopted in the case discussed in an earlier paragraph, where Mr. Brown of London is indebted to Monsieur Noir of Paris for goods worth £100. One hundred sovereigns contain 11300·16 grains of pure gold, and there is no reason why, in ordinary circumstances, Monsieur Noir of Paris should not be perfectly satisfied to receive in payment for his goods gold weighing 11300·16 grains. It should not matter to him whether the gold is in the form of gold sovereigns or merely in the form

of an ingot: both forms would be quite easily exchangeable in Paris for approximately the same quantity of goods as had been sent to London by Monsieur Noir.

There are grave drawbacks, however, to the use of gold for ordinary trade payments:

- (a) The transmission of gold is troublesome, expensive, and attended by great risk. Even its national use as an exchange medium involves heavy loss through abrasion; and to transfer it from place to place, in the masses and with the frequency that modern commerce demands, would constitute an intolerable economic loss
- (b) The total amount of gold in existence is not nearly enough to cover all transactions.
- (c) Gold is required for other important purposes, e.g., for internal currency (though that use is now almost in abeyance) and for use in the arts.
- (d) It is patent that commerce could never be carried on to anything like the present extent if each international debt had to be settled independently of all the rest by payment in gold. The commercial methods of the early Middle Age are impossible to-day.

Credit Instruments and Credit Transfers.—These drawbacks to the use of gold were overcome by the discovery that the use of the precious metals could be vastly economised, and that international settlements, however large, could be effected conveniently, smoothly and successfully by the use of credit instruments, which are not only paper evidences of the debts payable in the various currencies of the world, but are also promises to pay gold and thus do duty for the actual metal.

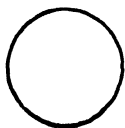
Use of the Credit Instrument Exemplified.—The great utility of a credit instrument is that it saves a debtor trouble and expense by enabling him to pay his creditor, not directly, but by transferring to him money owed to the debtor by a third party. Suppose, for example, A owes B £100, and W owes £100 to A. If, on A's instructions, W pays B, then both A's debt and W's debt are settled by that one payment.

If now we suppose that A lives in London and B and W in Cape Town, the inconvenience of A sending gold to Cape Town at the same time that W is sending gold to London is avoided. In place of the two gold shipments, all that passes between London and Cape Town is a

document, worded according to established form, signed by A directing W to pay B, instead of himself. Such a document, termed a Bill of Exchange, is illustrated below.

£100 0 0.

LONDON, 1st October, 19..



Three months after date of this First of Exchange
(Second of the same tenor and date unpaid) Pay
to the order of Mr. Barnaby Brace the sum of One
Hundred Pounds, value received.

ANTHONY ARNOLD.

TO MR. WALTER WINANS,
56 DURBAN AVENUE,
CAPE TOWN.

Negotiable Instruments.—A bill of exchange (which term includes the *cheque*) is the commonest type of that most important but limited class of documents known to the law merchant as Negotiable Instruments. But for the evolution of this class of instrument, it is difficult to see how commerce could ever have reached its present huge dimensions. “A Negotiable Instrument is a document containing a contract, to the ownership of which document are attached all rights under the contract. Whoever is in *bona fide* possession of such a document is presumed to be the lawful owner of it, and therefore entitled to enforce all rights under the contract. The document, and with it all rights under it, is transferred either by mere delivery, or by delivery accompanied by indorsement, and the person who in good faith takes it, takes it free from any rights which might be enforced against the person from whom he takes it, and free from any defect in the title of such person” (Disney, *Elements of Commercial Law*, p. 126).

From this admirable definition, it is clear that a negotiable instrument is an exception to the general rule of law that one party to a contract can only assign his rights under the contract to a third person, subject to any existing rights against him which the other party to the contract may have.

The bill previously illustrated, if it proved to be in order, would be accepted by the drawee or addressee, Walter Winans of Cape Town, and in due course be paid by him. Bills of exchange, even when they are signed only by the drawers, provided they are persons known to be of good repute financially, but more so when accepted by the drawees, and, it may be, indorsed by one or more transferees, are always worth

something approaching the values for which they are expressed, and as they have a ready sale in the market, they provide a most convenient means of settling international debts.

The Banks Act as Intermediaries.—In the example already given we assumed that Arnold had in Cape Town a creditor and a debtor for equal amounts, but in actual business that would rarely occur. Arnold may be owed £100 by some one in Cape Town, but if he did not himself owe £100 in Cape Town, it would be troublesome to hunt up some one in London who did.

The question then arises : How is creditor Arnold in this country going to establish contact with a debtor, also in this country, who wishes to pay a debt in Cape Town? The answer is that Arnold will make use of the services of one of the London banks, who make a business of buying and selling foreign bills. Let us assume for present purposes that he draws his bill in sterling on his debtor Winans and that he is able to discount the bill or sell it to his bank at the prevailing rate. Thus, so far as he is concerned, the matter is at an end, except that, as a party to the bill, he remains liable for the amount until it is paid.

But it still remains for the banker to reimburse himself for what he paid for the bill; and it is easy to understand how he does this, if we bear in mind that he is in possession of a document, which, when it is accepted by Winans, entitles him to payment of £100 in Cape Town, or, should the bill be dishonoured, to £100 from Arnold in London. The buyer will send the bill to his agent in Cape Town to be collected when due, and against the proceeds he will himself sell bills to English merchants who have money to pay in Cape Town. Bankers and others, who deal in claims and rights to money in foreign centres, are better able to purchase bills and to dispose of the collected proceeds than any merchant, for the simple reason that debtors and creditors continually resort to them, either to buy the right to currency deliverable in a foreign centre, or to sell their claims to such currency.*

The banks buy up trade bills payable in foreign centres which are offered to them by exporters and others who have drawn on their debtors abroad. The bills give the banks claims to money in foreign countries, and the instruments are sent by them to their agents in the relative foreign centres for collection and credit of the proceeds. The banks also buy up other rights to foreign currency, as, for example, other bankers' drafts, telegraphic transfers, circular notes presented by travellers for encashment, maturing coupons payable abroad and drawn bonds payable in other countries.

Against the credit balances so created, the banks sell drafts and other forms of remittance (or rights to foreign currency) to debtors in their own country who have payments to make in other countries. As a consequence, it is often more convenient for a London banker to have funds at his disposal, say, in New York than in London itself. A balance in the hands of his New York agent enables the London banker to sell rights to dollars in New York to his customers, whenever he is asked for them. But he could, of course, do this even without having an actual balance to his credit in New York, the matter being adjusted in the Account Current between him and his agent. As is the case with New York, so is it also with the other financial centres of the world.

It is clear then that British merchants have no difficulty either in selling or in buying rights to foreign currency. And what is true for traders in this country is true also for the foreign merchants, as banking facilities are available for all. Banks and financial houses specialising in this business, naturally for their own protection make themselves familiar with the financial standing of the drawers, acceptors, and indorsers of bills, and provided there is no ground for suspicion, readily take the bills offered to them. And, in the same way, they make it their business to be able to appraise instantly the value of any other rights to foreign money which they may be offered for purchase.

As a result of the world-wide ramifications of British commerce, London banks are in a position to sell rights to currency in almost any place in the world against the proceeds of those they have bought. There is thus no necessity for an English merchant who has to pay money, say, in Monte Video to seek out another English merchant who has to receive money from Monte Video, in order to effect "an exchange" of his debt. The remitter may without difficulty and at any time have a bank draft specially drawn by his bankers to meet his particular requirements, or he may obtain from them any other form of remittance convenient for his purpose.

On their part, the banks aim at balancing their purchases of rights to a foreign currency as evenly as possible with their sales of similar rights, unless, as will be explained later, they have any reason for desiring to keep their funds in any particular centre, as, for example, when interest rates in that centre are high.

The banks do not, of course, perform these most valuable services for nothing. On the contrary, they make remunerative profits not only from the difference between the price at which they buy and the price at which they sell, but also from favourable movements in the

rates of exchange and in the rates of interest earned on their funds in foreign centres.

Clearing Houses for International Settlements.—Thus we see that, as in the modern community the vast majority of internal debts arising for payment from day to day are settled by means of cheques and bills, so also, in much the same way, the vast sums of indebtedness constantly arising between various communities are settled by means of credit instruments and credit transfers. And just as the practical wisdom of generations of bankers has evolved the Bankers' Clearing House, where the enormous mass of claims which each bank has to present daily to the others are all brought together and discharged by a process of set-off, so, in the larger sphere of international commerce, the financial centres of the different countries may be likened to clearing houses where the claims of one country against the others are similarly adjusted. With the minimum of trouble, labour and expense, international payments reaching stupendous figures are grouped into vast aggregates which are simply set off and cancelled, one against the other, by transfers in the books of the banks and other financial houses which undertake the complicated business of international exchange.

The most vital internal currency problems in any country are concerned with the means by which legal tender money may be economised by the use of credit. In like manner, the problems of international exchange are concerned primarily with the methods by which the use and transmission of gold are economised by the credit mechanism manipulated by the exchange banks. In both spheres of exchange, internal and external, the goldsmith, with his scales and his acids for testing, has been superseded by the banker and the exchange broker, who, though all their dealings are still conducted on the basis of payment in gold—at least in countries that have adopted gold as their standard of value—now buy and sell, borrow and loan vast sums of money which exists merely in the form of credit instruments or of credit entries in a ledger. •

Merchants are thus able to concentrate their attention on the purchase and sale of goods, and to leave to the bankers, brokers, discount and accepting houses much of the actual work of providing and managing the international currency used to discharge foreign obligations.

Other Forms of Remittance.—Since bills of exchange are so largely used by the traders of the world to settle their debts, bankers naturally resort chiefly to the purchase and remittance of bills of exchange when they wish to replenish or build up their balances with their agents in

other parts of the world. But apart from the despatch of gold (nowadays sent only as a last resort), remittances can be made, and balances created or indebtedness cancelled, by sending other evidences of debt payable in the foreign country concerned, as, for example, coupons, foreign bonds, scrip certificates, share warrants to bearer, and stock and share certificates.

If a London banker cannot purchase sufficient bills of exchange on France to restore his depleted balances in Paris, he may send funds to his agents in that city in the form of bonds or coupons of, say, French Rentes. These are collected or sold and the proceeds placed to his credit. In the same way, any standard securities of a foreign country may be forwarded for realisation and credit of the proceeds. Dividend warrants and coupons of the leading American railways are frequently remitted to America in settlement of debts due for payment there, and large remittances of the bonds of Japanese loans are periodically despatched from London to the Far East, since, being Government securities, they are as readily acceptable for encashment by a banker as a bill of exchange.

This method of replenishing or creating balances is one which tends constantly to increase with the greater "internationalisation of securities", i.e., the arrangements whereby Government stocks, and the stocks and shares of the world's foremost industrial concerns (e.g., the British American Tobacco Co., Ltd., and the Royal Dutch Oil Co., Ltd.), are dealt in and listed on the world's principal stock markets. Remittances of this type are not, however, resorted to by ordinary merchants and traders. Their use is almost entirely confined to the settlement of indebtedness and the provision of funds as between international banks and financial houses. For the settlement of ordinary trade debts and for the finance of imports and exports the bill of exchange remains pre-eminent, since it provides an unrivalled means of securing payment of debts, of transferring credit and of raising temporary loans.

At the same time, it must be acknowledged that the position which the bill of exchange has so long merited and enjoyed has in recent years been seriously challenged by more direct and speedy methods of settlement made possible by the development of banking facilities throughout the world and by the great extension of telephonic and telegraphic communication.

Utility of the Bill of Exchange.—Enough has been written to demonstrate the enormous economy resulting from the use of bills of exchange for the settlement of debts between the nationals of one

country and the nationals of another, by simply transferring, through the medium of a class of persons skilled in matters of Foreign Exchange, the claims and obligations expressed by these documents. Bills drawn by the export merchants of country A to obtain payment for their exports to the import merchants of country B are sold to the banks and the proceeds are re-sold by them to the import merchants of country A to pay for their imports from the export merchants of country B. Creditors for exports transfer their claims to debtors for imports, thus illustrating the great basic principle of all trade, viz., that goods and services pay for goods and services; exports pay for imports. Gold is used in international trade only to settle differences or balances in account, and then only when payment in gold is unavoidable, as it was, e g, in the early days of the Great War when, owing to Great Britain's enormous purchases of food and material from the U S A, a very large adverse balance of trade was created in favour of the States, which at the time could be liquidated only by payment in gold. Gold cannot be used for payment indefinitely, as the supply is strictly limited and is required for other purposes. A country which is always on balance debtor to the countries with which it trades is a country living on credit, and must come, eventually, to national bankruptcy.

The Meaning of "Money".—Since the business of foreign exchange consists in the exchange of one currency or money for another, it is necessary to understand at the outset precisely what is meant by the terms "currency" and "money". In this book the term "money" is used in the sense of *anything which is widely used and accepted as a means of exchange*, and thus, in our own country, it would include gold, silver and bronze coins, Bank of England notes, cheques and bills of exchange. "Money is a kind of claim upon all other members of the community; a sort of order or promise to deliver which can be enforced whenever the owner pleases. It is a means to an end, held temporarily, not for its own sake, but as a means of obtaining other articles or of commanding the services of others. Money enables the consumer to generalise his purchasing power, and to make his claims on society at the time and in the form which suit him best." *

The *standard money* of a country is the commodity, usually gold¹ but sometimes silver, which is established in that country as the standard of all values. As a rule, the standard money is minted in the form of a standard coin, which thereby becomes the standard of value, the currency unit and the *unit of account*, i e, the unit which is used as

* S. Evelyn Thomas, *Elements of Economics*, 4th ed., p 388.

a measure or standard of the value of things in general, and in terms of which the wealth of the people is expressed. In Britain, where the standard money is gold, the standard of value is the sovereign, and this is also the unit of currency and the unit or money of account.

Currency and Money.—The term “currency” is frequently applied to any medium of exchange which is used within the boundaries of a State, and thus includes coins, bank notes, and such credit instruments as cheques and bills. But it is best applied in a more restricted sense to the form of money *which is issued by the State*, and which is regarded as the *current* medium of exchange by virtue of the Government authority behind it. In Britain, Bank of England notes (and gold coins when they are available) are properly regarded as currency, but bills and cheques are not current in the sense that they are universally accepted and received in payment. When, therefore, we speak in foreign exchange of “the purchase and sale of a country’s currency,” we refer more especially to money issued by Government authority in that country, and we regard the purchase and sale of bills, cheques, drafts, etc., as the purchase and sale of *rights* to the currency in which those instruments are expressed.

Legal Tender Money and Token Money.—*Legal Tender* is that form of money which must be accepted by a creditor up to any amount when it is offered in final discharge of debt or in full payment for commodities or services. In Britain, legal tender up to any amount consists of gold sovereigns, half-sovereigns, and Bank of England notes of 10s. and upwards.

Payments of small amount are facilitated by the issue of *token money*, so called because its face value is greater than the actual commodity value of the material from which the money is made. This material may be paper, but is usually an alloy of some of the less valuable metals such as silver, tin, nickel and copper. Strictly speaking, all paper money is merely token money, but the term is not ordinarily applied to paper money which functions in place of the standard currency and is exchangeable on demand into such standard currency, as, for example, the Bank of England note.

Token coins are maintained in circulation because (a) only sufficient are issued to satisfy the requirements of the community for making small payments; (b) they are more valuable as coins than as bullion, and (c) they are made legal tender for limited amounts only within the boundaries of the issuing State. For these reasons token coins are not, as a rule, of importance from the point of view of foreign exchange, although, as we shall see later in our study of the exchange

of India, circumstances may arise which considerably affect the value of a token currency and cause it to interfere seriously with the smooth working of the foreign exchange system in operation.

The Importance of Money in the Modern Community.—It is not necessary to enlarge upon the great importance of these different forms of money to the civilised community. Without them, the exchange of goods and services on the modern scale would be almost impossible. But money, in whatever form it exists, is not required for itself alone. Its value to man and its purpose in the modern world spring from the work it performs in facilitating the transfer of goods and other utilities.

Trade is Still, in Essence, Barter—For trade, whether internal or external, is still in essence the original act of barter. All that gold, or any other medium of exchange and measure of value, has done is to simplify the bartering. It is easier to take in exchange for an article a sovereign, or a Bank of England note representing a sovereign, and then, perhaps weeks hence, to exchange the sovereign or the bank note for some other article you need, than it is directly to exchange the one article for the other. Similarly it is easier to exchange a cargo of wheat for its equivalent value in machinery by means of a bill of exchange expressing that value in terms not of machinery but of gold. Gold is a store of value, not, it is true, as stable as we could wish, but more stable than most materials, and we can either keep our wealth in that form or at any time exchange it for an equivalent value in any other form of wealth. As we have already remarked, all trade (at least in gold standard countries) is based upon value expressed in gold and is conducted on the basis that, if desired, the gold will be forthcoming. But no one except a miser desires to store up mere gold. Gold has a limited value in itself for use in the arts and for personal adornment, but its real value is the food, clothing, houses, and all the utilitarian, physical, æsthetic, intellectual, and moral good for which it can be exchanged.

The Real Value of Money.—How then is this *real* value of money determined at any particular time? How do we judge whether the money for which we exchange our goods and our services is really worth what we give for it? We shall see later that the answers to these problems lead us to the very basis of foreign exchange theory. At this point it will suffice to observe that the real value of money to us is *what we can get for it* in the form of things which we need—food, clothes, books, warmth, light and enjoyment. If we get more of these things to-day per £1 than we could get in 1920, when prices

were high, then we gratefully conclude that money has a greater real value to us to-day than it had in 1920.

We express these facts more technically by saying that the value of money, in whatever form it exists, whether as dollars, pounds, francs or pesetas, is its *purchasing power* in terms of the goods and services of others. People in America, or France, or Germany, at any particular time estimate the value of their money by its *internal purchasing power or command over goods and services*.

Now, this purchasing power, or the value of a currency as money, quite obviously *varies inversely as the general level of prices*. If ten books cost £1, the value or the purchasing power of the pound in terms of books may be stated to be ten books and each book costs 2s. If the price of the same book is put up to 2s. 6d., only eight can now be purchased per £1, and the value or purchasing power of the pound in terms of books has fallen. More generally, we say that *when prices rise the value of money falls*, since less commodities can be obtained for each unit of money. Conversely, *when prices fall money becomes more valuable*, since each unit will purchase more commodities than previously.

It follows also, in accordance with the Quantity Theory of Money, that the more money we have available in relation to the total quantity of commodities and services we wish to exchange, the less will be the value of our money and the higher will be the price of the commodities and services. If the quantity of money in a country is suddenly doubled, while the quantity of commodities remains constant, then the price of those commodities will also be doubled, for there will now be twice as much money available to do the same "money work." On the other hand, if the quantity of money available is halved, while the quantity of commodities remains constant, then money will be twice as valuable as it was before, i.e., the price and the value of commodities will fall by 50 %.

In putting the theory in such elementary form we are, of course, ignoring a number of important reservations, as, for example, that the velocity of the circulation of the available money must, of necessity, influence its value in relation to the commodities exchanged. If we pass each piece of money from hand to hand in payment for goods and services twice as fast as we did before, then each money-unit does twice as much of the money work as it did previously, and the result is the same as if the quantity of money had been doubled; i.e., the value of money falls and prices rise by 100 %. But such refinements do not affect the fundamental truth which it is essential to understand

at this point—that the value of money tends to fall as its quantity is increased.

Now of all commodities which pass from one country to another, none pass more quickly and easily than money, and it stands to reason, therefore, that if prices are rising in one country and are stationary or falling in another, then money will tend to flow from the country where its value is falling (i.e., where prices are rising) to the country wherein its value is stationary or rising (i.e., where prices are falling).

Clearly, it is to the advantage of any country to maintain the value of its money, and consequently the general level of its prices, as stable as possible. Changes in the value of money have a disturbing influence on trade and production, while they interfere with the relationship between debtor and creditor. The ideal condition is that a country should have sufficient money to enable its internal exchanges to be carried out efficiently and quickly. If for any reason more money than this is available, the value of that money will fall and prices will rise. Conversely, if the community has less money than is required for its working needs, then, other things being equal, the value of the money available will be high and prices of commodities will fall.

How the Value of Money is Indicated.—Since money is itself the measure by which the value of all other commodities is determined and expressed, it follows that we have no absolute standard by which we can measure the value of money itself.

We cannot say that at a certain time the purchasing power or value of a given currency is $138x$, or $72x$, where “ x ” is a standard measure like feet or grammes enabling us to say that a table measures 3 feet, or that a coin weighs 10 grammes. And apart from this, the peoples of the world spend their money in such a large variety of ways, their standards of comfort and convenience are so different, and the estimation they place on any particular commodity is capable of such variation, that it is almost impossible to fix on any accurate basis for comparing the internal value of one currency with the internal value of another. Nevertheless, if we choose a representative group of articles on which the money of the inhabitants of a certain country is regularly spent, and determine the prices of those commodities at different times, we can compare the prices at one time with those at another and form a fair (but not *an accurate*) idea of any changes in the general level of prices, i.e., in the value of money, which have taken place between the times in question. This method is that adopted in the formation of what is known as an *Index Number*.

The Formation of an Index Number.—An Index Number is calculated in the first place by choosing a number of representative commodities in daily demand within the community, allowance being made by a method known as “weighting” for the relative importance of the various commodities in the average expenditure of the inhabitants. The prices of these commodities in a year which is to be taken as the basis are then determined and totalled. The total is equated to 100, and that figure is taken as an *index* or guide to the general purchasing power of the particular currency for the year in question.

The “Statist’s” Index Number, February 1929.

(In continuation of Sauerbeck’s figures Average wholesale prices
1867–77 = 100)

	Feb 28, 1929	Jan 31, 1929	Feb 29, 1928	June 30, 1914	+ or – per cent Feb 1929, on		
					Jan 1929	Feb 1928	June 1914
Vegetable food	104.6	102.2	107.3	66.5	+ 2.3	– 2.5	+ 57.3
Animal food	145.1	138.4	144.2	97.5	+ 4.8	+ 0.6	+ 48.8
Sugar, coffee and tea	75.4	75.7	79.4	51.8	– 0.4	– 5.0	+ 45.6
Food-stuffs	113.4	109.9	115.0	74.8	+ 3.2	– 1.4	+ 51.6
Minerals	129.8	127.0	121.3	96.7	+ 2.2	+ 7.0	+ 34.2
Textiles	131.2	130.1	137.7	80.6	+ 0.8	– 4.7	+ 62.4
Sundries	117.7	113.2	119.3	82.5	+ 4.0	– 1.3	+ 42.7
Materials	125.1	122.1	125.5	85.7	+ 2.5	– 0.3	+ 46.0
Total	120.1	117.0	121.1	81.2	+ 2.6	– 0.8	+ 47.9

In subsequent years the prices of the same commodities are obtained as nearly as possible in the same way, and their total is expressed as a percentage of the total for the base year. If the resultant figure is less than 100, a fall in prices is indicated, if the figure is greater than 100, the general level of prices must have risen.

The most important index numbers of general prices in this country are those of the Board of Trade, the *Economist* and the *Statist*. The *Economist* takes as its basis the *wholesale* prices of a wide group of commodities in 1927, so in subsequent years its index numbers will express a comparison between the ruling prices and those existing in that year. The *Statist* index number is based on the average *wholesale* prices of 45 commodities in the standard period 1867–77. Thus

Index Numbers of Wholesale Prices in the Various Countries, 1913-29.

(The "Economist" Monthly Supplement, February 23, 1929.)

WHOLESALE PRICES.

Monthly Average	United Kingdom (<i>Economist</i>)	Belgium	France.	Germany (<i>Frank- furter Zeitung</i>).	Italy (<i>Bachi</i>)	Spain	Australia	Canada.	Japan.	United States Bureau of Labour
1913-14 ..	100	100	100	100	100	100	100	100	100	100
1924 ..	166.2	573	488.5	146.9	512	183	173.3	155.2	199.1	144.1
1925 ..	160.9	558	549.8	143.6	596	188	169.5	160.3	206.5	140.5
1926 ..	149.4	744	702.6	136.8	603	181	168.4	156.2	201.7	148.3
1927 ..	143.7	847	617.2	138.3	495	172	167.0	151.6	178.9	143.3
1928 ..	140.9	843	620.6	137.0	462	—	—	150.4	169.8	136.7
1928-January ..	141.5	851	606.7	138.3	463	166	171.0	151.3	170.9	140.0
February ..	141.5	848	608.8	137.0	461	166	168.1	150.8	169.4	138.0
March ..	143.5	848	622.8	137.7	464	165	168.2	152.8	169.2	138.1
April ..	145.7	847	623.8	139.6	464	166	169.5	153.2	169.2	137.5
May ..	146.7	844	632.6	140.5	465	164	166.4	152.9	169.6	139.5
June ..	144.5	844	625.7	139.7	462	164	166.4	150.2	171.5	141.3
July ..	141.9	841	623.8	138.3	453	164	165.4	149.6	168.9	139.8
August ..	139.4	831	617.0	137.9	456	166	161.0	149.1	168.6	140.8
September ..	137.5	830	619.0	138.3	458	168	160.5	149.7	170.1	141.7
October ..	136.9	835	617.0	138.1	463	174	159.7	150.2	173.7	143.4
November ..	136.9	847	625.7	138.2	466	176	—	148.6	173.6	140.1
December ..	136.5	855	623.8	137.3	464	—	161.8	146.7	173.1	138.5
1929-January ..	136.1	867	630.6	—	—	—	—	—	173.7	138.5

the *Statist's* index number for 1928 was 122, whereas that for 1920 was 251, indicating that in the 1920-28 period prices had fallen by over 50 %.

By way of illustration two tables of index numbers from the *Statist* and from the *Economist* are appended. The first of these shows the distribution of the prices used for the compilation of an index number over the various items—food-stuffs and materials, and the increase or decrease per cent. in the prices of each group as between the dates specified. The second table gives an instructive comparison of the index numbers of wholesale prices for the most important countries of the world from 1913 to 1929. In this table the index numbers have all been brought into line by fixing the basic year in each case as 1913, and it will be observed that they indicate a rise in prices in all countries.

While the method of index numbers is very useful for purposes of comparison, it makes no pretence to absolute accuracy. An index number is merely an approximation, and is not in any sense an absolute standard measure like the yard or kilogramme. The commodities chosen vary considerably in quality and description over a period of years, while their choice is, of course, purely an arbitrary one, although it is necessarily made only after great care and deliberation. Then again, of the infinite variety and number of commodities bought and sold, only a very small proportion are taken into account in making up an index number, while, if we are comparing the purchasing powers of different currencies, we cannot ignore the fact that goods differ considerably as between countries in description, form and degree of attractiveness to the purchaser. The distribution of income among commodities varies widely from one generation to another; the luxuries of one generation become the necessities of the next. Standards of living change, involving redistribution of income, and modifying the relative importance of commodities in the average budget.

Index numbers, then, give us only an imperfect indication of the purchasing power of a currency, and, at best, that indication is only relative; we can compare one index number with another and say that the purchasing power of a currency has changed, but we have no standard or fixed basis of comparison. But so long as we appreciate these imperfections, we can utilise the index numbers published in the various countries as an indication of the changes in the purchasing powers of the respective currencies from time to time. The importance of a correct appreciation of these considerations will become clear to the reader at a later stage of our investigations.

CHAPTER II

BILLS OF EXCHANGE

As the bill of exchange plays such an important part in the settlement of international debts, it is necessary to consider that instrument somewhat more fully.

Definition.—As defined by the *Bills of Exchange Act*, 1882, a bill of exchange is “an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determinable future time, a sum certain in money to or to the order of a specified person or to bearer.”

Every word in this definition must be complied with in order to constitute the document a valid bill of exchange. Thus a document which is not signed by the drawer, or in which the drawee or, if not payable to bearer, the payee, is not indicated with reasonable certainty, or which orders anything to be done except the payment of money, or which makes payment contingent upon the happening of an event which is not certain to happen, or which leaves the actual sum to be paid open to doubt, or which orders the money to be paid out of a particular fund, is not a valid bill of exchange. The reason for this, says Story in his work on Bills, is “that it would greatly perplex the commercial transactions of mankind, and diminish and narrow their credit and negotiability, if paper securities of this kind were issued out into the world encumbered with conditions, and if the persons to whom they were offered in negotiation were obliged to inquire when these uncertain events would be reduced to a certainty. And therefore the general rule is that a bill of exchange always implies a personal general credit not limited or applicable to particular circumstances and events which cannot be known to the holder in the general course of its negotiation.”

A document satisfying the requirements as defined above, so as to constitute it a valid bill of exchange, conveys to a person

who takes it in good faith and for value a legally enforceable claim against the person from whom he takes it (provided, of course, that the transferor has indorsed the bill, and a transferee would always insist on this) and against all other parties to the bill.

In practice bills of exchange, particularly foreign bills, are rarely exactly similar in form to the example already given on page 7. As a matter of fact, no precise form is legally necessary, though commercial practice has reduced the forms to certain well-defined classes. Bills are frequently drawn payable in currencies other than sterling; the time of payment varies; references are frequently made on the bill to .—

- (a) The particular account to be debited with the payment, or
- (b) To the fact that the documents attached to it are to be surrendered only on the bill being either accepted or paid as the case may be, or
- (c) That the bill is to be paid either with interest, or at an indicated or determinable rate of exchange.

None of these additions varies the effect of the bill so as to make it a conditional document. The order to pay must always be unconditional.

An Inland Bill is a bill both drawn and payable within the British Islands or one which is drawn within the British Islands upon some person resident therein. Any other bill is a *Foreign Bill* within the meaning of the Bills of Exchange Act, 1882; but this definition does not apply to the Stamp Act (see below)

The following, in addition to the simple form of a foreign bill already given, illustrate the usual commercial forms of bills of exchange.

1. Inland Bill.

£275 0 0.

LONDON, November 3, 19..

Two months after date, pay to John Jones or order, two hundred and seventy-five pounds for value received, and charge to account as advised.

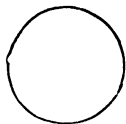
THOMAS ROBINSON.

TO MR. ARNOLD JENKINS,
1, LONG ACRE, E.C.

2. Inland Bill.

No. 73.

£306 17 2.

NEWCASTLE, *November 22, 19...*

Three days after sight, pay to myself or order, three hundred and six pounds, seventeen shillings and two pence, for value received.

R. SMITH.

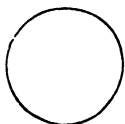
To MESSRS. JONES AND HILL,
1, NEWRY ROAD, BELFAST.

3. Foreign Bill.

COMMERCIAL.

No. 735.

Fcs. 7205.50.

MANCHESTER, *May 10, 19...*

Fourteen days after date, pay this bill of exchange to our order, the sum of seven thousand two hundred and five francs, fifty centimes, value received, which place to account as per advice.

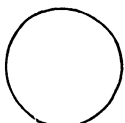
A. BUTLER.

To MESSRS. ALBERT FRÈRES,
LYONS.

4. Foreign Bill.

COMMERCIAL LONG BILL DRAWN AGAINST A SHIPMENT.

£970 0 0.

NEW YORK, *January 17, 19..*

Sixty days after sight of this First of Exchange (Second and Third of the same tenor and date unpaid), pay to the order of the First National Bank, New York, nine hundred and seventy pounds sterling for value received, and charge same to the account of 100 bales of cotton per S.S. "Adriatic."

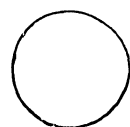
ANTHONY TIMS AND SON.

To LLOYDS BANK, LTD.,
LONDON.

5. Foreign Bill.
BANKERS' LONG BILL.

No. 619.
£360 10 0.

DEUTSCHE BANK, BERLIN,
January 17, 19...



Ninety days after sight of this our First of Exchange (Second and Third of same tenor and date being unpaid), pay to the order of Messrs. Jacobs and Company, the sum of three hundred and sixty pounds, ten shillings sterling, value received, which place to account of this Bank as advised.

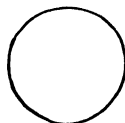
For and on behalf of Deutsche Bank,
To MESSRS. COUTTS AND Co., OSWALD SCHMIDT, *Manager.*
LONDON.

6. Foreign Bankers' Sight or Demand Draft.

The Guaranty Trust Company.

\$6,000.

LONDON, *May 20, 19...*



On demand, please pay to Messrs. Robins and Park or order the sum of six thousand dollars.

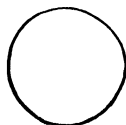
For and on behalf of the Guaranty Trust Company,
To the GUARANTY TRUST COMPANY, ABRAM LINCOLN, *Manager.*
NEW YORK, U.S.A.

7. Foreign Bill.

' . PAYABLE EXCHANGE AS PER INDORSEMENT.

£965 0 0.

LIVERPOOL, *May 27, 19...*



Ninety days after sight of this First of Exchange (Second and Third of same tenor and date unpaid), pay to myself or order the sum of nine hundred and sixty-five pounds for value received, exchange as per indorsement, and place to account as per advice.

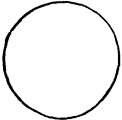
ALBERT ROBERTS.
To MESSRS. MARK, BRUCE AND Co.,
RIO DE JANEIRO.

8. Foreign Bill.

DOCUMENTS AGAINST ACCEPTANCE WITH INTEREST CLAUSE.

Exchange for £1,000.

LONDON, *June 30, 19...*

 Ninety days after sight, pay this First of Exchange (Second and Third of the same tenor and date unpaid) to the order of Lloyds Bank, Ltd., London, the sum of one thousand pounds sterling, payable at the National Bank of India's drawing rate for sight drafts on London on the date of payment, with interest at the rate of 6 (six) per cent. per annum from the date hereof to the approximate due date of the arrival of the remittance in London, value received Documents to be surrendered against acceptance.

To MESSRS ROYD AND RICHARDS,
CALCUTTA.

p.p. A. MARKS, LTD.
I. Brown,
Director.

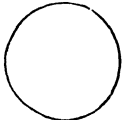
In need with A. Richards and Co., for honour of drawers.

9. Foreign Bill.

DOCUMENTS TO BE SURRENDERED ON PAYMENT.

\$570.

NOTTINGHAM, *October 22, 19...*

 Ninety days after sight of this our First of Exchange (Second and Third of same tenor and date unpaid), pay to our order five hundred and seventy dollars, value received, and place to account as advised. Shipping documents attached to be surrendered on payment.

To ABEL BOYD, Esq.,
SHANGHAI.

A. ROBINSON AND Co.

Parties to a Bill ; Acceptance.—The person who draws and signs a bill is called the *drawer*, the person to whom it is addressed is the *drawee*, and the person to whom the bill is expressed to be payable is the *payee*

The only persons liable on a bill are the parties thereto, but a person does not become a party until he affixes his signature to the instrument. When a bill is issued there is only one signature thereon,

that of the drawer, and he therefore is the only person responsible for its due payment until it is signed by someone else. Very frequently, the drawer and the payee of a bill of exchange are the same person, i.e., the drawer draws the bill payable to his own order. If the drawee agrees to obey the order, i.e., to pay the bill, he signifies his consent to the order by writing his name across the face of the bill. This is called "accepting" the bill, and the bill, which before acceptance is frequently referred to as a "draft", is then called an "acceptance". Usually, the drawer adds the word "accepted" to his signature, but the signature is the vital thing. When the bill is drawn payable "after sight", it is necessary for the acceptor to add the date of presentation or "sighting", since it is from that date that its maturity is fixed. It is customary when accepting a bill to add the name and address of the banker who will pay it at maturity. This is called "domiciling" a bill. Thus the acceptance of a bill drawn payable after sight would, in practice, run as follows —

ACCEPTED JULY 15, 19...
PAYABLE AT LLOYDS BANK, LTD.
KING WILLIAM ST., E.C.
RUTTER, JONES, FOULKES AND Co.

The result of acceptance is that the drawee becomes a party to the bill primarily liable for its due payment, both to the drawer and to any other person who may subsequently take the bill, whether for value or not. The drawer is not, of course, liable on the bill to the acceptor, but, after acceptance, he remains liable to all other parties if the bill is not in due course paid by the acceptor.

Indorsement.—If the payee sells the bill, or, as we say, transfers it for value, he evidences the fact of the transfer by writing his name on the back of the bill. This is called "indorsing" the bill. Indorsement is necessary in all cases, except when the bill is payable to bearer, and then no indorsement is required, the document passing by mere delivery. Similarly, any holder who transfers an order bill must indorse it. Each indorser, i.e., transferor by indorsement, is liable should the bill be dishonoured for its full amount to all indorsers subsequent to himself, unless he expressly excludes himself from liability by adding after his signature the words *sans recours*, or *without recourse to me*, or unless he indorses purely as agent, and the form of his indorsement clearly shows that he is indorsing as the agent for another, and not as a principal. The

acceptor of a bill is the person primarily liable, then the drawer, then each indorser in the order in which he indorsed. Thus the final holder of a bill may very well have quite a number of different guarantees that the bill will be paid, as the security of the instrument increases with the number of signatures thereon. Indeed, so numerous sometimes are the indorsements that the back of the bill is insufficient to accommodate them, and a slip of paper, called an "allonge", has to be attached to the bill itself to provide additional space for them.

Usance.—A perusal of the specimens given above will show that the term of bills, i.e., the time within which they are payable, is variable. Bills may be drawn payable at sight, or on demand, or within a few days of sight or date, or at quite long intervals after sight or date. There is no general rule, legal or otherwise, for fixing these periods, but as between certain countries it has long been the usage to draw bills at a certain customary period after date or after sight. For example, cotton bills between New York and London are usually drawn at sixty days' sight, that being the long-established "usance" between the two centres. The matter is now of little practical importance, but, in some lists of exchange rates, a column headed "usance" specifies the most usual form of remittance between the respective centres, and the exchange rate quoted refers only to this form, although in practice others may be used (cf. the list on p 141).

Days of Grace.—In the British Isles, on all bills other than those drawn payable on demand, at sight, or which are overdue, three days of grace beyond the time of payment mentioned in the bill are allowed before a bill becomes legally due for payment. If the last day of grace falls on a Bank Holiday, then a bill is payable on the day after, but if the last day of grace falls on a Sunday, Christmas Day, or Good Friday, then a bill is payable on the preceding business day. If the last day of grace falls on a Sunday, and the second day of grace is a Bank Holiday, the bill is payable on the succeeding business day.

Calculating Date of Payment.—In calculating the due date of a bill, calendar months are reckoned and no allowance is made for lacking days. For example, a bill dated 31st January at one month is payable on the third day after the 28th February, i.e., on the 3rd March, whereas a similar bill dated 29th February in a leap year is payable on the 1st of April.

Of course, if a bill is drawn payable at so many *days* after date or sight, the requisite number of days must be carefully calculated by taking into account the varying number of days in the different

months, due regard being paid to the fact that February has 29 days in each leap year as against 28 days only in an ordinary year. Thus, a bill dated 1st January, 1928, and made payable "90 days after date", would fall due for payment on the 3rd April, 1928, whereas a similar bill dated 1st January, 1929, would not fall due until the 4th April, 1929.

Stamp Duties.—Nearly all countries require stamp duty to be paid on bills of exchange drawn or negotiated within them. Foreign bills usually bear adhesive stamps, inland bills must generally be drawn on impressed stamp paper. The duties vary considerably in different countries, according to the nature of the bill and the time for which it is drawn. Bills on demand bear a small stamp, whereas those for long periods require *ad valorem* duties on the amount for which they are drawn.

Foreign drawn bills must have the necessary adhesive stamps affixed to them by the person who first negotiates them in this country, but inland bills, with some exceptions noted hereunder, require to be drawn on paper impressed with the appropriate stamp. The duties are as follows:—

Bill of exchange payable on demand, or at sight, or on presentation, or within three days after date or sight for any amount (both inland and foreign drawn) ... 2d.

Note.—the above may be either impressed or adhesive.

Bill of exchange of any other kind except a bank note for an amount not exceeding £10 2d.

Exceeding £10 but not „ £25 3d.

„ £25 „ „ £50 6d.

„ £50 „ „ £75 9d.

„ £75 „ „ £100 1s.

Every additional £100 or fractional part thereof 1s.

Note.—These stamps must be impressed on *all* bills drawn in this country other than those specified above, but for foreign-drawn bills the special adhesive stamps must be used. It must be understood that the definition of an inland bill in the Bills of Exchange Act, 1882 (see *ante*, p. 21), does not affect the Stamp Act, and all bills drawn in this country must bear impressed stamps although they may be foreign bills within the former Act, as, for example, a bill drawn in this country on a person resident abroad and made payable abroad.

The duty payable on a bill of exchange drawn and expressed to be payable out of the United Kingdom, when actually paid or indorsed or in any manner negotiated in the United Kingdom, is as follows —

Where the bill exceeds £50 but does not exceed £100...6d.

For every additional £100 or fractional part thereof ...6d.

For example, a bill drawn in Paris payable in Berlin is correctly stamped 6d per cent. if negotiated in this country, but a bill drawn in Paris payable in London requires stamping in accordance with the schedule given above.

Note.—The stamp duty on bills over £100 according to the above table is at the rate of 1s per £100, or 1s per 2,000 shillings, i.e., the duty is $\frac{1}{2}$ per mille. This rate of stamp duty is usually taken for working examples on the exchanges, as it is a fair average for most countries.

Various Kinds of Bills.—The specimens of bills given above indicate that many different types are met with in practice

Cheques, “demand drafts”, and “at sight drafts” are terms used for bills which are payable on presentation of the order to the drawee. Cheques are paid without acceptance.

Long Bills are those which are drawn payable at a certain specified period after date or sight. They are sometimes called *currency bills*, a term which is, however, ambiguous, since it may refer either (a) to the unexpired period which the bills have to run before maturity, i.e., during which they are *current*, or (b), to the fact that the bills are drawn in foreign currency and not in sterling

Short Bills are those which, whatever their original tenor, have only ten days or so to run before maturity.

Bank Bills include (a) bank drafts, which are issued by bankers in one country on, or in favour of, their agents or correspondents in another, either at the request of their customers, or the agents themselves, or for the purpose of realising profits by the sale of bills on the markets, and (b) ordinary commercial bills which are accepted by a reputable bank. In the market, bank bills are known as first-class bills, or “best paper”, or “financial paper”, because of the financial guarantee embodied in the signature thereon of a well-known bank, either as drawer, acceptor, or indorser. For this reason they command better prices and are more easily discountable than ordinary trade bills arising from mercantile dealings.

Trade Bills, or Commercial Bills, also described as “ordinary

bills", "trade paper" or "commercial paper", are those arising from the usual course of mercantile dealing between merchants and manufacturers. Although these instruments are usually quite secure, they fail to command as good a price in the market as bank paper because the credit of the parties is not considered to be as good as that of banks and financial houses.

Bank Bills and Trade Bills can be either (a) *currency bills* or *tenor bills*, or (b) demand drafts or cheques. Long bills are more usual between distant centres. Bills are also classified as *Clean Bills* or *Documentary Bills*.

Documentary Bills are those the payment of which is secured not only by the parties to the bills but also by merchandise. A documentary bill has attached to it the documents relating to the shipment in respect of which the bill is drawn. These documents are:—the Bill of Lading, Marine Insurance Policy, Invoice, and, sometimes, a Certificate of Origin of the goods, or a Consular Invoice, in lieu of the ordinary invoice. A bill of lading being a document of title, *bona fide* possession of the bill of lading is tantamount to possession of the goods themselves, and, if the bill is dishonoured either by non-acceptance or by non-payment, the person in possession of the bill of lading can obtain the goods, sell them, and apply the proceeds against the amount of the dishonoured bill. Seeing also that the holder of such a bill has the security of the drawer and indorsers, he can come upon all or any of them to make good whatever deficiency may be disclosed between the amount of the bill plus expenses, and the proceeds of sale of the goods.

The documents are usually given up to the drawee when he accepts the bills, and in such cases the bill is marked "Documents against Acceptance", and is known as a "D/A Bill", or an "acceptance" bill. In other cases, where the credit of the drawee is not considered so good, the documents are not to be given up until payment is made, and the bills are marked "Documents against Payment", and are known as "D/P Bills" or simply "payment bills". As the possession of the documents enables the goods to be obtained, the drawee is often able to get the goods before he has actually paid the bill, by arrangement with the presenting bank.

Usually he is asked to sign a document in favour of the accommodating bank called a 'Trust Receipt', by which he pledges himself to hold the goods in trust for the bank. By merchants' custom he is allowed to take up, i.e., pay the bill, at any time before it is due, under *rebate*, and so obtain the documents, the rebate allowance

made by the banker being as a rule $\frac{1}{2}$ % above the rate for short deposits for the period the bill has to run.

Clean Bills have no documents attached, as the credit of the parties is considered sufficiently good to permit the documents to be sent to them direct. As the absence of the documents is an indication of the better standing of the parties, clean bills are more readily discounted by bankers and brokers. It may, in fact, be stated that as a general rule bills with documents attached are not freely discounted on the market.

The majority of clean bills fall within the category of *finance* bills, i.e., bills drawn by banks on their foreign agents and branches, not against the actual shipment of goods, but for the purpose of transferring funds or satisfying the demand for exchange when trade bills are in short supply. (See *Accommodation Bills*, below.)

Dishonour of Bill.—If a bill is not accepted by the drawee when it is presented for acceptance, or paid by him when it is presented for payment, the bill is said to be dishonoured, and the presenting banker may have it “noted”. The holder of a bill, on receipt from his banker of notice that it has been dishonoured, must himself immediately give notice to all the parties to the bill whom he intends to hold liable for payment, since unless a party to a dishonoured bill has received due notice of dishonour he cannot be proceeded against. In addition to being noted, a foreign bill must also be “protested”, otherwise the drawer and indorsers are discharged. A notary’s protest is legal proof of dishonour in every country where the *lex mercatoria* prevails.

Case of Need.—On some bills, as in Example 8 (p. 24), an indication is made at the foot of the name of some person or persons who will pay the bill in case of dishonour for the account of a party to the bill, usually the drawer. The object of this is to obviate the considerable loss arising from the dishonour of the bill in a foreign country, and to preserve the honour and good name of the party for whom the case of need acts. Payment in such a case does not discharge the party at fault, who remains liable on the bill if his signature appears thereon, otherwise he remains liable on the commercial contract.

Accommodation Bills.—Where a bill does not arise from any actual commercial transaction, whereby one person becomes a *bona fide* debtor of another, but is specially created in order to enable one (or more) of the parties to it to put himself in funds by discounting the bill, it is known as an *Accommodation Bill*, and the person or persons lending their names for the purpose are called *Accom-*

modation Parties. The person primarily liable on such a bill is the person accommodated, be he drawer, acceptor, or indorser of the bill. Such bills are naturally frowned upon by bankers, whose prime business it is to facilitate the manufacture and exchange of goods, and they would not knowingly facilitate their use. But there is a class of accommodation paper which bankers handle largely and which serves a most useful purpose. In agricultural countries, for example, where the inhabitants live on the proceeds of sale of the harvests, bankers are called upon early in the year to supply drafts to the merchants of such countries to pay for their imports of manufactured articles and machinery. These drafts are issued by the bankers against the future proceeds of bills which the merchants will draw later in the year when the harvest has been ingathered, sold, and exported. Obviously, this kind of anticipatory drawing is capable of very wide and beneficent extension, and such *finance* bills stand in a very different category from accommodation bills properly so called, and derisively referred to as “kites”, or “windmills”.

Bills in a Set.—Bills on foreign places are usually drawn in a set of two or three bills, denominated First, Second, and Third of Exchange, all of which are exactly similar except for the number and reference to the other parts, but only one part is accepted, and only one part is stamped, the three parts forming one bill. The object is to prevent loss in transmission, and also to facilitate negotiation. The First of Exchange can be sent forward to the drawee for acceptance, the Second following by a later mail, while the Third part can be negotiated at once. When the three parts reach their destination, they are attached together, and are thereafter regarded as one bill. The drawee of a bill in a set should always take care to accept only one part and the holder should endeavour to get possession of all three.

Interest.—As a rule, interest does not enter into bill transactions arising from the purchase and sale of goods, but sometimes express provision is made for the payment of interest (*see* Example 8, p 24). In that case, the amount of the bill to be paid by the drawee is increased by interest at a fixed rate for the period mentioned in the bill. A “sum certain in money” is no less a sum certain because it has to be paid with interest, or by stated instalments, or at an indicated rate of exchange. This sort of interest arising from the bill itself is not to be confused with the interest which a banker takes into account when he buys or discounts a bill that will not mature for payment till some future date.

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So long as the rate of interest provided for in a bill of this kind is as high as the rate of discount ordinarily being charged by a banker, the latter will purchase such a bill at its *face value*, subject only to any necessary deduction for stamps and collection charges.* In due course the banker, through his agent, will collect from the drawee the face value of the instrument, *plus* interest at the prescribed rate for the period of the bill and for the time which must elapse before the proceeds reach the discounting bank.

CHAPTER III

THE BASIS ON WHICH WORLD CURRENCIES EXCHANGE

IN the first chapter it was explained briefly how the debts arising from international trade are settled through the intermediary of bankers who buy and sell rights to money payable in other countries. By way of illustration we took the case where an exporter, Arnold of London, drew a bill on his creditor in Cape Town, and we assumed, for the sake of simplicity, that the bill was drawn and payable in *sterling*.

In the past, it is true, British exporters have been fortunate in that they have been able to draw bills on many of their foreign debtors, and obtain payment of a large proportion of their foreign debts, in terms of their own currency, sterling, but this is a position which no longer obtains. Nowadays, debts owed by foreign debtors, whether in respect of the import of goods or for other items, are almost invariably expressed to be payable *in terms of the currency or money of the creditor's own country*. An American who buys "old masters" in London generally undertakes to pay for them in sterling, while a London merchant who buys fashionable dresses in Paris has usually to provide payment therefor in French francs.

Clearly, the American who has to pay money in London must buy the right to the requisite amount of sterling with his own currency—dollars—and, similarly, the London merchant who has to pay a debt in Paris must buy the right to the requisite number of francs in Paris. We already know *how* this is done—the debtors merely resort to the banks who make a business of buying and selling rights to money in all parts of the world. But what we do not know is the solution to the problem already postulated in the first chapter—*why* are so many francs at any particular time regarded as equal to the English pound sterling? On what basis do francs exchange for pounds, or pounds for dollars? Or, more generally, on what basis does one currency exchange for another currency? What governs the price of the money of one country in terms of the money of another?

The Rate of Exchange.—Many students of Foreign Exchange experience difficulty at this point because they fail to understand how it is possible to buy money with money, and how it is possible to have a “price” for money when money itself is used to express the prices of all other articles. Such difficulties would be understandable if we were considering only one form of money, but in foreign exchange we are concerned with the buying and selling of *one form* of money in terms of *another form* of money. The best plan, therefore, is to regard all foreign currencies—whether they exist as coins or notes, or merely as *rights* to currency in the form of bills or credit balances in a bank’s books—in exactly the same light as any other commodities which we buy and sell. Nowadays, it is as easy to enter a bank and buy so many thousand francs or dollars or pesetas as it is to enter a stock-broker’s office and buy the same number of gramophone shares, or to enter a local grocer’s shop and buy a number of candles or tablets of soap.

In Foreign Exchange, then, we are concerned with the buying and selling of one money or currency for another money or currency, and the price of the unit of one currency in terms of another currency is technically called a *Rate of Exchange*.

“Fixed” and “Moveable” Rates of Exchange.—Now on the London Market there are two ways of expressing these prices or rates of exchange. The prices of some currencies are expressed in the same way as any other prices in this country, i.e., *in terms of pounds, shillings and pence per foreign unit of currency*. At the time of writing, the rate of exchange on India is about 1s. 6d. per rupee, while that on Hong-Kong is about 2s. per dollar. Rates of exchange quoted in this way are sometimes described as “*fixed*” or “*certain*” or “*direct*” exchanges, because the foreign unit is a fixed quantity although its price in English money varies from time to time.

The majority of rates quoted in London, however, are expressed in reverse fashion, i.e., *in terms of foreign currency to the £1*. Thus, the price of French currency in terms of sterling, or the rate of exchange on France, is given in terms of francs and centimes per £1, e.g., £1 = 124·50 francs. The rates of exchange on U.S.A., Germany, Belgium and other important countries are similarly quoted, the method being described as “*moveable*”, “*uncertain*”, “*indirect*”, or “*variable*” exchange (in contra-distinction to the method of *fixed* quotation referred to above) because the price in terms of foreign currency varies from time to time.

For some inexplicable reason the latter method of quoting the rates

of exchange gives students of Foreign Exchange no end of trouble, but a little consideration will at once show that there is really no difficulty about it at all. If we enter a shop and buy three novels for £1, we say that the price of each novel is 6s. 8d. But we could just as well regard ourselves as selling our £1 note for novels, and consider the selling price of our £1 as "three novels". In just the same way, we can buy or sell French francs in terms of so many pence per franc or in terms of so many francs per £1.

There are several reasons for the preference for the moveable method of quotation in London. One reason is that the English sovereign is one of the world's largest monetary units, so that it is more convenient to quote in terms of the smaller units to the £1 than to quote in terms of a few pence to the foreign unit. But the more important reason is that the quotation of the price of foreign currency in this way facilitates comparison with the prices of sterling as quoted in the world's most important financial centres, having originated when the English pound was supreme in the world's markets, and British traders did not dream of quoting prices in foreign currency.

Merchants Buy at the Rate of Exchange.—We should now understand that the merchant who wishes to pay a debt abroad must pay his bank sufficient sterling to buy the right to the requisite amount of foreign currency at the prevailing rate of exchange.

Suppose that on a given day a London bank quotes the rate of exchange on Paris as 125·00 francs per £1, and that Brown of London wishes to pay 10,000 francs to Monsieur Noir of Paris for goods received.

Brown will pay the bank $\frac{10,000}{125}$, i.e., £80, and will be handed a sight

draft on the bank's Paris agent for 10,000 francs. This he will send to Monsieur Noir, and that gentleman will obtain payment in his own currency by presenting the draft for payment to the Paris agent of the London Bank. In ordinary circumstances the London bank will have a balance in francs standing to its credit in the books of its Paris agent, and against this balance the amount of 10,000 francs will be debited in respect of the draft cashed for Monsieur Noir. From time to time, as he issues drafts of this kind on Paris, the London banker will have to restore his balance of francs by remitting "cover" to his Paris agent. Such cover will consist of ordinary trade bills on France purchased from exporters in England; or it may consist of any of the many other forms of remittance which are available.

Market Conditions of Demand and Supply.—But the solution of this

problem does not explain *why*, at any particular time, £1 *should be worth* 125·00 francs, or 4·86 dollars, or 35·00 belgas, and not more or less. Of course, if there is a much greater demand in London for francs to-morrow than there is to-day, then the banks may give their customers only 124·50 francs per £1 to-morrow although they may be willing to give 125·00 francs per £1 to-day. The price or rate of exchange between any two such currencies will naturally vary somewhat according to the vagaries of supply and demand, in just the same way as the price of eggs on a country market varies according to the relationship between the quantities brought in for sale by the local farmers and the quantities demanded by the people who come to the market to buy.

The *supply* of any currency in London at any particular time will consist mainly of offerings of rights to that currency in a variety of forms by persons who have sent goods, securities or money to the foreign country. The *demand* for the foreign currency arises chiefly from persons in this country who have to buy rights to that currency in order to pay for goods, securities or money imported from the foreign country concerned. And, as we have seen, both the demand and the supply will be concentrated mainly in the hands of the banks.

In addition to demand and supply springing from the actual transfer of commodities, foreign currencies will be in demand to pay for a variety of services rendered by other countries in connection with the transfer, insurance and financing of goods, while, conversely, offerings of foreign currency will be made by British shipowners, factors, commission agents, accepting houses and other agencies which undertake services connected with the transfer and finance of goods on foreign account.

In brief, the demand for and the supply of a foreign currency on the London Market at any particular time will largely arise on trade account, and, naturally, the intensity of demand and supply will vary according to the general direction of trade. If exports from country A to country B are much in excess of imports from B to A, then, of course, the offerings of rights to B's currency in A will be in excess of the demand for that currency. And *vice versa*. In general, the relation between the demand for and supply of the currency of country A in country B will be much influenced by the balance of trade indebtedness arising for settlement between A and B at any particular time. The elements of this indebtedness are more fully considered in Chapter VIII.

From the beginning of the nineteenth century, when Goschen wrote his famous *Theory of the Foreign Exchanges*, until the period of the Great War it was almost generally agreed that the rates of exchange between any two countries were determined by the market conditions of supply and demand for remittances from one country to the other, and that those conditions depended mainly on the balance of trade indebtedness between the two countries.

It was left to Professor Gustav Cassel, of Stockholm, to emphasise the fact that the explanation afforded by this orthodox theory of the foreign exchanges does not go far enough. Whilst it explained the course of the exchanges in the normal circumstances of pre-war days, it offered no satisfactory explanation of the abnormal position and unparalleled fluctuations of the rates of exchange between independent currencies during and immediately after the Great War. Apart from the fact that the movements were of such frequency and of such extent that they could not be accounted for by the direction of trade even in normal circumstances, trade between many nations during the period of violently fluctuating exchange rates was practically at a standstill.

Some of the fluctuations were, of course, attributable to the action of speculators in foreign currencies, who, during and after the War, made enormous purchases or sales of foreign currencies according to their judgment whether the future value of those currencies was likely to rise or to fall. For, in addition to what we may term *legitimate* demand and supply, based on payments for goods, securities and services, there is always an important *speculative* demand and supply in the most important foreign currencies. Just as on the Stock Exchange we have "bulls" who buy certain shares they do not wish to hold in the expectation of a rise in price, and "bears" who sell certain shares which they do not possess in the hope that the price of these shares will fall still further, so also the foreign exchange market has its bulls and bears who buy and sell the various currencies in the hope of making profits by manipulating the rates of exchange.

The result of such conditions is that there are constant movements in the principal rates of exchange not only from day to day, but also from hour to hour. Sometimes the movements are very slight; at other times they are violent in the extreme. But in all cases, the actual rate of exchange at which business is transacted is—as Whittaker so well remarks—"forged out between the hammer and the anvil of bid and offer." At any particular moment, or on any particular day, dollars are worth in terms of pounds only *what the buyers on the market*

will give for them, or, conversely, *what sellers are prepared to take for them*. If the market is flooded with dollars, or if speculators are selling dollars for all they are worth, then the price of dollars in terms of pounds will fall rapidly. On the other hand, if there are relatively few dollars on offer, and the bulls of dollars are much in evidence on the market, then the price of dollars will rise and the rate of exchange on New York will express the prevailing tendency.

But even after giving due weight to the effects of the whims and fancies of speculators, the existing theory did not afford a true interpretation of the position at which the rates of exchange tended in the long run to rest, and, for this reason, Professor Cassel and others set themselves to find a fundamental theory of the foreign exchanges which would not explain the trend of exchange movements merely in terms of the balance of trade or of indebtedness, but would, as it were, get behind the old theory and explain *why the balance of indebtedness arising for settlement at any time should be what it is*. In other words, they sought to determine *why a foreign currency is in demand at all* and what, in the long run, determines the price that people, say, in this country, are willing to give for dollars or francs or pesetas.

True Value and Market Price.—The reader who has some acquaintance with Economics will know that the *market price* of a commodity, as determined by demand and supply at any particular time, may have very little, if any, relation to the *real value* of the commodity as determined by its cost of production. Again, to-day's *price* of a gramophone share on the London Stock Exchange may have been forced up by promoters, underwriters and bull speculators out of all proportion to the *true value* of the share as an investment and interest-bearing security. In just the same way, the price of one currency in terms of another as indicated by the prevailing rate of exchange may be merely the result of market bargaining and afford no particular indication of the *real value* of one currency in terms of the other. •

But however much the price of a commodity, of a share or of a currency may fluctuate from day to day, there is in the long run a true value to which the market price always tends to return. In the case of a commodity that true value is its cost of production, while in the case of a share it is its investment and income value. What, then, is the true or ultimate value of one currency in terms of another currency? The answer is that, in the long run, the worth of one currency, A, in terms of another currency, B, is judged by a comparison of the purchasing power of A with the purchasing power of B.

The Relative Purchasing Power of Two Currencies.—Money, we have seen, is wanted merely because it gives its possessor the power to purchase the goods and services of others. Since each country uses its own particular form of money, that particular form must be obtained by anyone who wishes to purchase goods or services from the country concerned. In ordinary circumstances it would be useless for a Spanish trader to try to buy tinned meat in Chicago with pesetas, or for an American merchant to offer dollars in payment for silk purchased by him in Milan. In the absence of special arrangements, sellers of goods expect to be paid in their own money—that money which is provided for their use by the State, and which represents the only universal form of purchasing power within the boundaries of that State.

Now, at any particular time, people in London who are buying dollars or francs or marks may be willing to give for them whatever they are asked in the market—they will be prepared to buy at the prevailing rate of exchange. But *in the long run* buyers of those currencies in this country will give for them *only what they are respectively considered to be worth in terms of goods and services*. People in London buy dollars because that is the only way in which they can obtain purchasing power in the States, but ultimately the price they will give for dollars is determined by the quantity of goods which dollars will buy as compared with the quantity of goods which pounds will buy.

We judge the value of a foreign currency to us by its command over goods and services (i.e., its purchasing power) as compared with the command of our own money over similar goods and services. The greater the purchasing power of the foreign currency unit, the higher the price we are willing to pay for it. As we have seen, purchasing power is indicated by the general level of prices, so that if prices in a foreign country are high compared with our own, the money of that country will not go very far, and we therefore expect to get more of its money in exchange for our own money. If the franc or the peseta is not purchasing enough goods and services to satisfy our feeling of justice or equality at the moment, we will not pay a high price for it, and the higher the level of prices in the foreign country relative to our own prices, the less will we pay for the money of that country.

Let us state the position in another way. A pound in my pocket here in this country will purchase so much—it has a certain purchasing power in terms of goods and services. I expect to get with it so many cigarettes, so many pounds of sugar and so many loaves of bread. If I wish to buy goods from France, I must first exchange my pound for French currency, but having done so I expect to get that amount of

French currency which will enable me to buy just as many cigarettes, and just about as much sugar and bread, as I can get for my pound here in England. I will pay more or less for the franc according as it gives me a greater or less command over goods and services in France. If I had visited France in 1913 and found that 25 francs went just about as far as a sovereign in England, then, of course, I should have been satisfied to exchange my Bank of England notes for francs in Paris at the rate of 25 per £1. But if I go to France to-day and find that it takes as many as 125 francs to go as far as the pound note does in this country, I shall naturally expect to exchange my £5 note for five times as many francs as I received in 1913.

Professor Cassel expresses these fundamental facts in this way: "Our willingness to pay a certain price for foreign money must ultimately and essentially be due to the fact that this money possesses a purchasing power as against commodities and services in that foreign country. On the other hand, if we offer so and so much of our own money, we are actually offering a purchasing power as against commodities and services in our own country. Our valuation of a foreign currency in terms of our own, therefore, mainly depends on the relative purchasing power of the two currencies in their respective countries "

The Purchasing Power Parity.—We may thus conclude that the value of the unit of one currency in terms of another currency is determined, *at any particular time*, by the market conditions of demand and supply, but *in the long run* that value is determined by the relative values of the two currencies as indicated by their relative purchasing power over goods and services.

In other words, the rate of exchange, in spite of temporary fluctuations due to the conditions of demand and supply on the foreign exchange market, will tend to rest at that point which expresses, equality between the respective purchasing powers of the two currencies concerned. This point is called the *Purchasing Power Parity*.

Let us consider by way of illustration some representative group or block of commodities which are as much in demand in the United States as they are in Britain, for example, a group consisting of certain quantities of bread, sugar and tea. For the moment we will ignore transport costs and assume that these goods can pass freely from the one country to the other without impediment or restriction of any kind, and that, at a certain time, this representative group can be purchased in the States for \$500 and in this country for £100. What

* *Money and Foreign Exchange After 1914*, p. 138.

then should we expect? Clearly that people in the two countries would regard the purchasing power of \$500 as equivalent to the purchasing power of £100, and that, in exchanging dollars for pounds, they would expect to do so on this basis of the real relative worth of the two currencies. In other words, they would expect a rate of exchange of \$5 per £1, and if, in fact, they did not receive this rate, their actions would cause economic forces to come into play which would tend to bring the exchange rate to this point.

The truth of this can be easily verified. Suppose that, although \$500 buy the same block of commodities as £100, yet the market rate of exchange is only \$4 per £1. Then, so far as English purchasers of dollars are concerned, dollars are *overvalued* in the foreign exchange market, because, for each £1, buyers get only \$4, whereas, on the valuation of the dollar in terms of commodities, they should get \$5 per £1. On the other hand, so far as American purchasers of pounds are concerned, pounds are *undervalued* in the foreign exchange market, because buyers have to give only \$4 for each pound which represents purchasing power over commodities costing \$5 in the States.

Buyers of dollars in London would thus be dissatisfied with the market rate of exchange offered to them and they would hold off their purchases. Sellers, on the contrary, would endeavour to take advantage of the relative high price of dollars. Consequently, the London demand for dollars would fall off whereas the supply would increase, the price of dollars would fall and the rate of exchange would rise. In New York, on the other hand, there would be eager buyers of sterling, but sellers would be disinclined to part with their holdings. The tendency would be for dollars to be exchanged into pounds so that the proceeds could be spent in the centre where money is the more valuable in terms of goods. Thus demand would tend to exceed supply and the price of sterling in terms of dollars would rise, i.e., the rate of exchange on London would move upwards from \$4 per £1, and would tend to rest at the purchasing power parity of \$5 per £1.

Apart from this tendency of demand and supply to modify the exchange rate, there would be other reactions. The commodities which realise \$500 in the States realise £100, i.e., the equivalent of only \$400, in this country. Goods are, therefore, more valuable in the States than in England, whereas money is more valuable in England than in the States. Consequently, goods tend to flow from England to the States, whereas money tends to flow in the reverse direction. Fewer goods and more money in England will naturally send prices up, whereas more goods and less money in the States will

send prices down. Possibly the point of equilibrium would be reached when the block of commodities first referred to could be purchased in the States for \$480, and in this country for, say, £110, while the market rate of exchange would tend to rest at about \$4·4 per £1. Clearly the market rate of exchange and the course of prices are subject to several forces pulling in different directions, but the general tendency is for the market rate to move towards the point at which it represents equality between the purchasing powers of the two currencies concerned.

In this example, we have confined our attention to a few commodities only, but the reasoning would be equally true when applied to any number of commodities or services which are in universal demand. So long as competition is free and there are no restrictions on imports or exports, goods tend to move from one country to another by reason of very small differences in price. And if the goods themselves do not move, money itself will be transferred to those centres wherein it can be spent to the best advantage.

How the Purchasing Power Parity is Determined.—In spite of its theoretical truth, the great practical difficulty about the purchasing power parity is that it is largely an abstract conception. There is no *absolute* basis by which we can measure the relative real values of two currencies because these currencies themselves function in their respective countries as the basis of all values, and, as we have seen in discussing price index numbers, there is no absolute means of assessing the purchasing power of a currency. Fortunately, we are afforded a working basis for determining the purchasing power parity in the fact that all the most important countries of the world have adopted gold as a measure and standard of value, in terms of which we can not only assess the relative values of different commodities but also compare the relative values of two different currencies by reference to *their relative purchasing power in terms of gold*.

Gold, we have shown, is an international currency, accepted throughout the world in full discharge of debt and in full payment for commodities. Whether it consists of bars or ingots, or of coins of a denomination which is utterly unintelligible to the recipient, gold is taken anywhere and at any time, without cavil or comment. Whatever the name, weight or fineness of a country's standard coin, that coin is measurable in terms of any other gold currency, and it is so measurable in a way which is universally understood.

The Purchasing Power Parity under a Free Gold Standard.—For many years prior to the outbreak of the Great War in 1914 the

currencies of the principal countries of the world were based on what is known as the *full gold standard*. This implied that the currencies were freely exchangeable for gold, in bullion or otherwise, at practically the same rates as those at which the standard coins were minted, and that all debts payable in the countries concerned were, if required, payable in gold upon demand. In other words, a French creditor who was owed £100 in London could obtain in payment either 100 gold sovereigns or gold bullion containing the same weight of pure gold as is contained in 100 sovereigns. Moreover, these sovereigns, or the bullion if it were preferred, could be taken to the Bank of France and gold francs containing an approximately equal weight of pure gold could be had in exchange.

In these circumstances, gold flowed freely from one country to another. The prices of goods in the principal countries were gold prices. If, for any reason, gold became relatively scarce in one of these countries, the prices of its goods would fall. Other nations would therefore buy its goods and gold would tend to be sent to that country in payment, thus increasing its supplies of gold and restoring its level of prices. The quantity of gold in existence thus tended to be distributed among the nations according to their relative requirements, and prices throughout the world tended to reach equilibrium at the point where a given quantity of gold bought approximately the same quantity of goods in one country as it did in another. In other words, both money (i.e., gold) and goods tended to have the same value in all places.

In consequence of the Great War, the monetary arrangements of all countries in the world were greatly disorganised, and in most of them gold ceased to function as a medium of exchange. Full discussion of the conditions brought about by this disorganisation is deferred to a later chapter, and for our present purpose it is merely necessary to explain that, after several years of monetary difficulty, all important countries have now taken steps to re-establish the gold basis of currency and exchange. Happily, the time is gradually approaching when, as in pre-war days, the relative values of the principal currencies will be determined primarily by their relative purchasing powers in terms of gold.

When the currency of a country is firmly established on the gold basis, any person in that country who wishes to compare the values of his own currency with that of another country on a gold standard will naturally think first and foremost of their relative values in terms of gold. If at any particular time, \$4·85 purchase as much pure gold

as £1, then an American who has to buy sterling will be satisfied to accept a rate of exchange of $\$4.85 = £1$, or, alternatively, he will be satisfied to sell goods which he values at $\$4.85$ in return for the right to £1 payable in London, i.e., the right, if he likes to enforce it, to one sovereign's worth of gold in London. On the other hand, an Englishman buying goods from New York will, in the same circumstances, be satisfied to pay his bank £1 for each amount of $\$4.85$ paid out on his account by the bank's agent in New York against the purchase of the goods.

In such circumstances, the gold coins of one nation are clearly interchangeable for those of another merely by weight—due allowance being made, of course, for any difference in the purity of the gold contained in the coins. The Swiss franc and the Spanish peseta are minted out of gold of the same degree of purity, so that, apart from the question of slight inconvenience—it does not matter to a Spanish merchant whether his Swiss debtor sends him a given number of pesetas or a given number of francs—both quantities contain the same weight of pure gold and can be exchanged in Spain for the same quantity of goods.

Under a common gold standard, therefore, the purchasing power of the gold standard currencies is the purchasing power of gold, and the basis of the rates at which these currencies exchange one for the other is the quantity of pure gold which the standard coins respectively contain. This basis is called the *Mint Par of Exchange*.

Mint Par of Exchange.—The Mint Par of Exchange is defined as—

“The exact equivalent of the standard coin of one country, expressed in terms of the standard coinage of another country having the same metallic standard, the equivalent being determined by a comparison of the quantity and fineness of the metal contained in the two standard coins as fixed by law.”

By English law our standard coin, the sovereign, contains a definite weight of gold of a definite fineness. By French monetary law a hundred-franc gold piece also contains a definite weight of gold of fixed fineness. If then we know these laws, or Mint regulations as they are called, it is an easy matter to determine the exact ratio which the pure gold in a sovereign bears to the pure gold in a hundred-franc gold piece. Similarly, we can determine the exact ratio which the pure gold in a sovereign bears to the pure gold in a twenty-mark gold piece, or a five-dollar gold piece, etc. The calculations are shown in Chapter XIX but the chief Mint Pars are as follows.—

United States	£1 = \$4·8665
Germany	„ = Rmks. 20·429
Belgium	„ = Belgas 35·00
France	„ = Fcs. 124·2134
Italy	„ = Lire 92·46
Switzerland	„ = Fcs. 25·2215
Spain	„ = Pesetas „
The Scandinavian Monetary Union—	
Denmark	„ = Kroner 18·15952
Norway	„ = „ „
Sweden	„ = Kronor „
The Netherlands	„ = Florins 12·107
Hungary	„ = Pengöes 27·82
Austria	„ = Schilling 34·58½

It is clear from the definition that a Mint Par of Exchange can be established only between two countries having the same metallic standard. You cannot have a Mint Par between one country with a gold and another country with a silver standard, though you may have a Mint Par of Exchange between two countries whose standard is silver. No ratio can be definitely fixed between silver and gold, because the market price of one metal in terms of the other is a variable and not a fixed price. In gold standard countries, silver is simply a commodity subject to fluctuations of supply and demand, just as the base metals are; and similarly the price of gold in silver standard countries is a fluctuating, not a fixed price. The Indian silver rupee is worth in London only what it will fetch as silver, and in Mexico the value of our gold sovereign depends upon the number of silver dollars which will be given for it in the Mexican market.

The Mint Par of Exchange is simply the theoretical measurement of the standard gold coin of one country in terms of the standard gold coin of another. To say that £1 is equal to 124·21 gold francs is just like saying that 1 kilometre is equal to 0·6214 of a mile, or that 1 kilogram equals 2·204622 lbs. But the Mint Par has nothing to do with any actual sovereign, or any particular 124·21 gold francs.. It assumes that the two coins concerned are of the full legal weight and of the absolute standard of fineness required by the mint regulations. For these reasons the mint par is unaffected by the fact that coins may suffer abrasion through being circulated, or that there might be a slight difference (permitted as *tolerance* by the Mint Laws) between the actual weight of the coins minted and their legal weight, or a slight

difference (permitted as *remedy allowance* by the Mint Laws) between the actual purity of the coins and the standard of purity required by law. Any such differences must, of course, be taken into account if it is sought to exchange one gold currency for another, but this does not affect the theoretical mint parity between these two currencies. That parity is a creation of law, and so long as the monetary laws of the countries remain unaltered, the Mint Par of Exchange between them will remain unaltered.

Ideal or Hypothetical Par of Exchange.—The mint par of exchange as here explained must not be confused with the Ideal or Hypothetical par of exchange between two currencies which is frequently referred to by older writers on international trade. We may illustrate this conception by reference to the exchange between England and Australia.

It is conceivable that on a certain day our claims in London arising for settlement on Australia, i.e., the supply in London of Australian currency, might be exactly equal to the claims of Australia arising for payment in London as indicated by the demand for Australian currency in the latter centre. At such a time, then, £1 in London would be exactly equal to £1 in Sydney. The claims of Australia's London creditors would exactly balance the amounts owing from her London debtors, and there would be no question of remitting gold or anything else in settlement of a balance either way. Market conditions would thus give rise to a state of absolute equality and debts would be cancelled at par between the two currencies.

Clearly, such a state of equality is far too ideal or hypothetical to be of any practical value, and we may merely observe, in passing, that, if such circumstances as were visualised by the older writers could possibly exist under modern conditions, then, so long as the gold standard was functioning in both countries concerned, the ideal parity would merely coincide with the mint par of exchange.

Gold Points or Specie Points.—So long as gold can flow freely between two gold standard countries, then the rate of exchange between them must tend to keep very closely to the mint par. If both currencies are freely interchangeable into gold, their purchasing power is the same as the purchasing power of gold and the purchasing power parity between them coincides with the mint parity. In practice, the market rate of exchange will not remain exactly at the mint par. It will move on either side of that ratio within two limits, known as the *gold points* or *specie points*, which are determined by the cost of moving gold between the two countries concerned.

We have seen that £1 in gold is the exact equivalent of Fcs. 124·21 in gold, so that, in theory, a standard sovereign would be exchanged in Paris for 124·21 standard gold francs, and 124·21 standard gold francs would be exchanged in London for a standard sovereign. But to move a sovereign between London and Paris entails expense and involves a certain loss of interest, and due allowance must be made for these and various other factors, shortly to be discussed, in calculating the equivalent resulting from buying gold in one centre and selling it in the other.

For purposes of illustration, we will assume that the cost of transmitting gold from London to Paris on a given date is approximately 50 centimes per £1, and *that gold can be bought and sold in both countries at mint par rates*. Then, for every sovereign's worth of gold sent to Paris, a London remitter would realise—

$$\text{Fcs. } 124\cdot21 \text{ minus expenses } \cdot50 = \text{Fcs. } 123\cdot71 \text{ net,}$$

and, on the day in question, this would be the *outgoing* or *export* gold, specie or bullion point from London to Paris.

On the other hand, to pay a gold sovereign (or its equivalent) in London it would cost a Paris remitter—

$$\text{Fcs. } 124\cdot21 \text{ plus expenses } \cdot50 = \text{Fcs. } 124\cdot71,$$

and this, on the day in question, would be the *incoming* or *import* gold, specie or bullion point into London from Paris.

Limits to the Prices of Remittances.—Clearly, there are two gold points between this country and each country whose monetary standard is gold, one at which it is cheaper to ship gold to pay foreign creditors rather than buy and use any other form of remittance and the other at which it is cheaper for foreign debtors to remit gold rather than use any other form of remittance.

Debts will always be paid in the cheapest possible way, and people in one country will not pay more on the foreign exchange market for the currency of a foreign country (i.e., for purchasing power in that country) than they can realise by buying gold and paying the expenses of transmitting it to the foreign country, thereby obtaining gold purchasing power in that country. If at any particular time the gold points with France are those which we have quoted, then so long as the rate with France is over 123·71 it will always pay an English debtor to buy francs in the market rather than send gold, for he thereby obtains more than 123·71 francs in France for every £1 he pays in London. Once the rate drops below this figure, it will pay better to

send gold rather than buy francs on the market; and this point, obtained by deducting from the currency equivalent of the sovereign (i.e., the Mint Par) the actual cost in the foreign currency of obtaining and remitting each sovereign, is known as the *Export Point from England*.

The Import Point to England is the Mint Par (= Fcs. 124·21) *plus* the actual cost of obtaining and remitting gold per unit of Fcs. 124·21. This cost we have assumed to be ·50 franc; hence, on this basis, the Import Point to England is Fcs. 124·71, and this point is reached when a French debtor is asked to give more for sterling remittances than Fcs. 124·71 per £1, notwithstanding that he can send gold and realise that rate.

We may express the same conclusion in alternative fashion by stating that the export specie point from a country is *the rate of exchange obtained by purchasing gold at home and selling it abroad*, while the import specie point to a country is *the rate of exchange obtained by purchasing gold abroad and selling it at home*.

The Cost of Moving Gold.—The elements entering into the cost of moving gold from one country to another comprise freight, packing, carriage, and insurance, together with commission to the banker or bullion broker undertaking the business, and perhaps some charge for minting and/or assaying. There is also the question of interest for the time the metal is in transit, and this will vary according to the rates being charged in the various centres and according to the length of time taken.

As a rule, the charges for freight are the chief item, and these vary for a number of reasons. They will be relatively less per unit on a large consignment than on a small one, while they may differ from time to time because one shipper is able to make a better contract for the transport of the metal than another, or because freight and transport costs generally have changed. Competition for gold shipments as between the shipping companies and other agents is extremely keen, and freight rates are not only cut to a minimum but vary considerably from time to time according to the relative convenience of the shippers and other circumstances. Again, very large consignments may be sent by more than one boat, with the result that freight charges will be relatively greater per unit, although insurance charges will be *less*, than in the case of a heavy consignment sent in one parcel.

Competition of Air Transport.—An important factor affecting freight charges is the competition of air transport. Between Continental centres, particularly, this method is now almost always used by

reason of its advantages of speed, absence of risk of loss from theft, and relatively low cost—the latter chiefly because little or no interest is lost on account of time taken in transit. Thus, at the time of writing, the expenses of transmission between London and Berlin are from $\frac{1}{2}$ to 1 pfennige per £1 less by air than they are by steamer.

One possible result of this saving of time and cost by air transport is that gold movements between European centres may, in the future, tend to be smaller but more frequent, since operators will not neglect the opportunities for profit to be gained by moving consignments of relatively small dimension. But it has to be remembered that aeroplane transport is not yet available at a moment's notice to take gold bullion, while, if no return load can be arranged, the freight charge may be nearly doubled and the total expenses correspondingly increased.

The Interest Factor and Gold Movements.—The element of Interest is also of great importance in its influence on gold movements, especially on those between distant centres. The amount of interest lost during the shipment of the metal will, of course, depend essentially on the prevailing value of short-term funds, i.e., on call-money rates, and on the speed with which the transfer is effected. Exporters of gold will save interest if they are able to ship the metal by a fast boat, and for this reason gold shipments between London and New York are made wherever possible by the *Mauretania*, *Bremen*, and similar first-class vessels. By using one of these vessels instead of a slow boat as much as two days' interest may be saved, quite an appreciable item on a large consignment. Indeed, so important is this factor of speed in its relation to the movement of gold between New York and London that the availability of a fast boat to New York soon after the arrival of bullion from South Africa will enable the gold to be taken from London at a higher rate of exchange (i.e., a lower sterling cost) than if a slow boat only were due to sail. On the other hand, the absence of a fast boat may so affect the interest position as to prevent a movement of gold which would otherwise be made.

In certain circumstances, the interest factor may be ignored altogether. Suppose, for example, that a large bank holding considerable balances in a foreign centre decides to withdraw some portion of those balances in the form of gold. Since the banks do not reckon to earn interest on their purely cash holdings, they are naturally in a position to ignore interest lost during transit in the case of a movement of the type here discussed. As a result, it may be profitable for a bank to

move gold when the position of the exchange is not such as to induce other institutions to undertake gold shipments. Similar considerations apply in the case of financial institutions which undertake the movement of bullion, not as a purely exchange operation, but for the purpose of increasing the basis of credit in another centre, as, for example, to provide extended credit for operations on a foreign stock market. In such cases, the profit accruing from the speculative operations conducted with the additional credit may be sufficient to counterbalance any slight extra cost of moving the gold, so that the metal may be shipped when a movement is not in fact justified by the exchange position.

Special Charges on the Purchase or Sale of Bullion.—In calculating the out-turn of a gold shipment, due allowance must, of course, be made for any special addition made, on the one side, to the buying price of the metal, and for any deduction made, on the other side, for mintage or assaying. We have so far assumed that gold can be bought and sold in the respective centres at mint par rates, e.g., that a person who tenders bank notes for £20,000 to the Bank of England would receive £20,000 *full weight* sovereigns or the equivalent weight of pure gold in some other form, free of all charge. But this does not always happen in practice. In most countries there is a slight difference between the prices at which the central banks will buy or sell gold, while other factors may operate to make the price paid or realised different from the mint price.

In pre-war days, gold required for export from this country was usually obtained by exchanging notes for gold at the Issue Department of the Bank of England, which was always willing to deliver sovereigns or bar-gold for its notes at the Mint Price of £3 17s. 10½d. per oz. of standard gold, $\frac{11}{12}$ ths fine, equivalent to about £4 5s. per oz. of *fine* gold. If demand was pressing, however, the Bank took advantage of the position and charged a penny or two extra for bar-gold, which is preferred for export owing to its greater convenience, or it issued *light-weight* sovereigns.

It is not always remembered that if the Bank issues sovereigns in exchange for its notes it is under no obligation to pay out *full-weight* coins. Sovereigns are legal tender so long as they do not fall below the minimum legal weight of 122·5 grains standard, and if coins down to this weight are issued the equivalent selling price may be as high as £3 18s. 2d. per ounce. Since the passing of the Gold Standard Act, 1925, the Bank of England may at its option encash its notes with gold in the form of sovereigns or of bars, so long as the amount is not less

than 400 ounces of fine gold. Hence, light coins may still, if necessary, be issued.

In the centre to which such coins are exported they are, of course, regarded merely as so much bullion and credit is given for them only according to their weight. In calculating the out-turn of a gold shipment, therefore, due allowance must be made for any increased cost of the gold due to the presence of light-weight coins in a consignment of the metal.

Again, gold exported from London may not be obtained from the Bank of England at all, but may be purchased in the London Bullion Market at a price slightly less than the £3 17s 10½d per ounce standard charged by the Bank under the terms of its Charter. Naturally, the profit on a shipment will be more if the gold is bought from London in this way at the cheaper market rate.

Similar factors operate in other centres. In certain foreign countries specific charges for assaying, etc., have to be paid on the sale of imported gold. Gold can always be obtained from the U.S. Treasury in New York at the fixed price of \$20·67183 per ounce troy, while gold sent to New York can be sold at this price to the Treasury or to the New York Federal Reserve Bank. But in each case credit is given immediately only for *a proportion of* the invoice value of imported gold—the Bank gives credit for 97 %, while the Treasury gives credit for 90 % only. The balance is retained for about 20 days for assaying, and during this time interest is lost and must, of course, be allowed for as part of the expenses of the gold shipment.

France affords another example. Since the stabilisation of the franc in 1928, the Bank of France is required to buy and sell gold bullion at the price fixed by the law instituting the new monetary reform, viz., 16,963·53 francs per kilogramme of fine gold. From this price, however, the Bank is allowed to deduct the cost of minting the gold into coins, subject to a maximum charge of Fcs. 40 per kilogramme of gold, 900 fine. In addition, assay charges amounting to Fcs. 50 per bar have to be paid by an importer, with the result that the net yield is in the neighbourhood of 16,915·05 francs per kilogramme. Moreover, the charges for minting and assaying are occasionally changed. Thus, it is announced, at the time of writing, that the Bank of France has reduced its minting charge to 20 francs per kilogramme in order to lower the cost of importing gold into France. Variations of this kind must, of course, be most carefully taken into account by persons who wish to buy gold here in order to sell it on the other side of the Channel.

Gold Points are in no sense "Fixed".—It follows then that the yield obtained by buying gold in one country and selling it in another varies from time to time and can never be fixed with any degree of exactness. The exact cost, however, is immaterial. The point to remember is that actual gold shipped to Paris, Berlin, or New York, etc., after allowing for the expense of getting it there, yields a definite net rate of exchange, which is very close to the Mint Par, but which varies slightly from time to time as the expenses and other elements vary.

In pre-war days conditions were so stable and gold flowed so freely from one gold country to another that the expenses of transmission between the chief centres, such as London, Berlin, Paris and New York, changed but little over a long period of years. As a result, the cost of transmitting gold from London in pre-war days to Paris and Berlin was invariably given as 10 centimes and 10 pfennige per gold sovereign respectively. In the same way, the expenses of sending gold from London to New York were always said, in theory at any rate, to work out at 8 per mille, while for sending gold from New York to London the figure of 5 per mille was ordinarily regarded as about right, the difference being accounted for mainly by the variation between the Bank of England's buying and selling prices for gold.

During the War the movements of gold were almost everywhere restricted and for some years the specie points were of mere academic interest. With the return of the world's principal countries to the gold standard and the resumption of gold imports and exports, however, it is again becoming possible to obtain approximate figures for the cost of moving gold from one financial centre to another. Examples of the calculation of present-day gold points involving the considerations here discussed are given in Chapter XX.

The Automatic Check of Gold Movements.—Now the *fundamental* importance of the gold points is not so much that they act as limits to the prices of remittances between two gold standard countries, but that they afford an automatic indication that gold movements (or other alternative measures) are necessary to adjust the relative price levels between those countries. If the currencies of any two countries are maintained on the gold standard, then the price levels in both countries will represent the purchasing power of gold in terms of commodities and services. And so long as gold can pass freely between the two countries, its purchasing power in both will be approximately the same.

If prices in one country are relatively high as compared with those of other countries, its imports increase and its exports fall off. The

value of gold in that country is low relatively to its value in other countries. The purchasing power of the country's currency falls as compared with other currencies, and the purchasing power parities move to the export specie points, until the position is corrected by the movement of some of the gold to the countries where its value is relatively high. Thus gold flows out and goods flow in.

Hence, between two countries on a gold standard, forces are constantly at work which tend to bring about an equality in their respective price levels, i.e., an equality in the value of gold in both countries. Those forces may have practical effect in a number of ways, but ultimately gold will move when the exchange rates reach the specie points, those limits which indicate that the time has arrived when gold must be moved if the price levels are to be adjusted.

Gold Shipments result from Actions of Bankers.—In practice, of course, the merchants and traders who have to make payments to other countries do not worry about purchasing power parties, or about the value of foreign currency in terms of gold. Nevertheless, the economic forces taken into account by the theory of the purchasing power parity operate unfailingly through the actions of bankers and others in the various financial centres. A banker who is anxious to maintain his franc balance at his Paris agency will not pay more pence per franc (i.e., accept less francs per £1) for his customer's trade bills on France, or for other remittances offered to him by the Foreign Exchange Market, than he can realise by shipping to France gold obtained from the Bank of England or from the London Bullion Market. He maintains his franc balance in order to supply his customers with purchasing power in France, and if he cannot buy that purchasing power in the form of rights to French currency at a cheaper rate than he can buy and ship gold, then, of course, he will ship gold at the earliest possible opportunity. On the other hand, the French banker who seeks to maintain his sterling balances in London will not pay more francs per £1 for his customer's trade bills or for any other form of remittance to London than he can realise by exporting gold and paying the expenses of transmission.

For these reasons, bankers and others who make a business of shipping gold carefully watch the exchange rates and arrange for gold to be sent in or out of a country when it becomes profitable to move it. The institution exporting the metal receives credit in the currency of the country to which the gold is consigned, and, after making due allowance for all the expenses and charges involved, calculates the rate of exchange at which it can profitably offer remit-

tances on the foreign country against the balance created by the realisation of the gold.

Suppose, for example, that the London rate of exchange on New York for telegraphic transfers is approaching the point at which a London banker, with his intimate knowledge of all the expenses involved, knows when it is profitable to ship gold to the United States. He maintains a careful watch on the course of the exchange market and as soon as he sees his opportunity he arranges for a parcel of gold to be sent and sells remittances against the anticipated proceeds.

Bankers in New York are similarly watchful, and, if London bankers take no steps to send gold when such a movement is warranted by the exchange position, the New York bankers remit sterling to London and instruct their London agents by cable to buy a specified quantity of gold on the London Market and to ship it at once to New York. The New York banker is debited by his London agent with the cost of the gold and with all expenses attending the shipment, including freight, insurance, packing, cartage, etc. This debit will in due course be met by the proceeds of the sterling remittances sent from New York. When the gold is realised in New York the banker in that centre recoups himself for the sterling remittances he has forwarded to London and any balance remaining represents his profit or loss on the transaction.

Gold Shipments are not undertaken by Ordinary Traders.—Clearly, if the specie points limit the prices which bankers will pay for remittances to foreign countries, they must also limit the prices paid by all other people concerned, for, as we have seen, the prices paid by a bank's customers are determined primarily by the cost to the banker of covering his own sales of foreign drafts. And while, in theory, there is nothing to prevent any merchant or trader from sending gold in payment of a debt if he cannot buy a credit remittance at a sufficiently cheap rate, in practice shipments of bullion are undertaken only by bankers and bullion brokers, who make a special business of this class of transaction, and who have at their command not only appliances of particular kind but also protective measures of special character.

Influences which Narrow the Margin of Gold Exchange Fluctuations.—Since the export and import specie points represent the limits within which the exchanges fluctuate in ordinary circumstances, it will be clear that, the closer those limits are to the mint parity, the smaller will be the range within which the exchanges can fluctuate. Consequently, any factor which has the effect of reducing the cost of moving

gold between two countries must also have the effect, other things being equal, of lessening the gap between the upper and lower gold points and thus restricting the range of exchange movements. More speedy means of transport, the use of air transport between Continental centres, the lowering of interest rates, and the cutting of insurance and freight charges consequent upon competition for the business, are all examples of factors which have the effect here discussed

Export of Gold Restricted.—It has been said that when the rate of exchange between two gold standard countries diverges so far from the Mint Par that it becomes cheaper to buy and remit gold than to buy and forward any other form of remittance, then, in theory, gold will be bought and exported in discharge of international debts. But even in pre-war days Governments endeavoured to restrict the exportation of gold for this purpose. It is well known that prior to 1914 the Bank of France and the Reichsbank in Berlin placed difficulties in the way of the export of gold whenever they considered it advisable to prevent or restrict an outflow of the metal. The result was that, while the outgoing specie points from London to France and Germany were always effective in drawing gold from this country, the incoming specie points to Britain might be reached and exceeded, and yet no gold arrived from Paris or Berlin.

In the long run, and in the absence of any other corrective or correctives of the adverse exchange position, gold would leave those centres, otherwise they would have ceased to maintain their currencies on the gold basis. But the effect of such restriction was the same as if the movement of gold had been subject to some special expense as a result of which the margin between the mint par and the outgoing specie point was temporarily widened. The New York Exchange has long been more sensitive in this respect, for New York in recent years has proudly sought to maintain her prestige as a free market for gold, and the U.S. Treasury has consistently abstained from direct interference with gold movements.

The Purchasing Power Parity between Inconvertible Currencies.—During the Great War the normal movement of gold between the various countries entirely ceased. In those countries which had maintained a gold currency, gold coins disappeared from circulation and their place was taken by inconvertible notes issued by the respective Governments in ever-increasing quantities. Such gold as was available in each country was most carefully conserved, and was used to make foreign payments only in exceptional circumstances. In the majority of countries, the issue of inconvertible paper resulted in

severe inflation, i.e., more currency was put into circulation than was required to satisfy the needs of trade at the existing level of prices. Many currencies became heavily depreciated, and prices accordingly soared to unprecedented heights.

In such circumstances, the relative values of any two of the depreciated currencies could no longer be determined by reference to their purchasing powers in terms of gold, since gold was absolutely unobtainable in the majority of countries. The currencies, no longer linked by the common gold basis, functioned quite independently of one another, and the mint parities became of merely historical importance as the starting-points for the rates of exchange.

During the actual War years, 1914-1918, trade was so very restricted that foreign exchange operations based on the transfer of goods were reduced to a minimum. In the five or six years following the War, however, the foreign exchange market was characterised by the most violent and frequent fluctuations. In a great many cases these were the result of speculative operations having no legitimate basis, and rates were accordingly determined, even for long periods, by the conditions of demand and supply depending on the whims, fears and fancies of speculators, large and small.

The orgy of speculation reached its height in 1920, when the boom collapsed and movements in the rates of exchange, though still considerable, became less violent. In subsequent years, as the speculative factor decreased in importance, the rates tended to settle down in the neighbourhood of the relative purchasing power parities. Ultimately, the financially stronger countries were able to return to the gold standard at the pre-war parities by forcing up the value of their currency (e.g., Britain and Norway), while others took steps to stabilise their exchange rates with the gold standard countries at new parities, determined by the existing diminished purchasing powers of their currency (e.g., France and Italy).

Since a depreciated currency is not freely convertible into gold, it is not possible to determine its purchasing power by reference to the purchasing power of gold. Consequently, the purchasing power parity between any two such currencies can be determined only by considering the change which has taken place in their value since they were convertible into gold, and it is here that the method of index numbers becomes so valuable. The purchasing power parity in such circumstances is calculated with the year 1913 as a basis, for in that year the most important countries of the world were on a complete gold standard and it may be assumed that the purchasing powers of

their respective currencies were the same as the purchasing power of gold and therefore equal.

When both the franc and the pound sterling became depreciated through inconvertible note issues, prices went up in both countries, although much higher in France than in England. The pound note purchased less in 1918 than it did in 1913, but 25·2215 francs—the pre-war gold equivalent—purchased less still. Consequently, no Englishman would take 25 francs in exchange for £1. In theory he estimated what the franc was worth as indicated by a comparison of the French index number with his own, and he offered his price accordingly, lowering his price as the value of the franc fell with the constant inflation of that currency. We may illustrate this mathematically as follows:—

Let us take the case of two countries, A and B, both of which were on the full gold standard in 1913, and let us assume that the index numbers of wholesale prices in both countries stood in that year at 100. Let us assume further that the mint parity between their two currencies is £1 = \$5. Suppose that by January, 1926, A had maintained the full gold standard and that her index number had moved slightly to 120, whereas B had a heavily depreciated currency and an index number of 300. Then we may determine the purchasing power parity in January, 1926, as follows:—

Mint Parity in 1913 is £1 = \$5

$$£1 \text{ in } 1913 = \frac{120}{100} \text{ of } £1 \text{ in } 1926.$$

$$\$5 \text{ in } 1913 = \frac{300}{100} \text{ of } \$5 \text{ in } 1926.$$

$$\therefore \text{ in } 1926, £\frac{120}{100} = \$\frac{300}{100} \times 5$$

$$\text{i.e., } £1 = \frac{300}{120} \times 5 = \$12\cdot5^*$$

This, then, would be the purchasing power parity between the two currencies in January, 1926, and to this parity the market rate of exchange would tend to return. The new parity indicates that B's

* More shortly and generally, the Purchasing Power Parity between Britain and another gold standard country may be determined from the following equation, where it is assumed that the index numbers for the base year, 1913, are equal:—

$$\text{P.P.P.} = \text{Mint Par} \times \frac{\text{Foreign Index Number}}{\text{British Index Number}}$$

currency as between 1913 and 1926 depreciated 150 % in relation to A's currency. If the inflation of B's currency had been greater, her index number would have been higher and the purchasing power parity would also have been higher. This is true to facts as disclosed by statistical records, but there are nevertheless considerable variations between the prevailing rates of exchange and the purchasing power parities as obtained by calculation.

Deviations from the Purchasing Power Parities.—These variations between the actual and calculated purchasing power parities are known as "*deviations from the purchasing power parities*". They may be accounted for by a number of factors. In the first place, we may refer again to the admitted inaccuracy of index numbers, and to the fact that they are calculated in different countries on entirely different bases. Furthermore, index numbers of *internal* prices are representative of all prices within the country and include many commodities other than those which enter into international trade and which thereby give rise to foreign exchange operations between two countries. And even if it were possible to calculate an index number of the prices of commodities exchanged externally, allowance would have to be made, as it must be made in the case of gold, not only for the cost of moving the commodities from one country to another, but also for any export or import duties which have the effect of increasing the cost of the commodities to the importing country.

France, for example, imposes duties on the importation of certain luxury articles, while our own customs demand similar duties in respect of all imports of French wines. Naturally, such duties must be allowed for if we are to compare the relative cost to purchasers of these articles in the two countries.

Finally, there are all those influences, apart from the movement of goods, which affect the rates of exchange and which we have already referred to under the general heading of speculative demand and supply for currency. If, for example, speculators *anticipate* a further fall in the value of a currency in consequence of persistent inflation, they will undertake "bear" operations, i.e., sell currency which they do not possess in the hope of purchasing it at a cheaper rate. On the other hand, speculators will institute "bull" operations in a currency which they expect to rise in value; i.e., they will buy as much as they can, not for actual use, but to hold, with the object of selling at a profit when the rate of exchange moves in their favour.

The effect of such anticipatory operations, in conjunction with the other factors mentioned, is to bring about marked differences between

the actually prevailing exchange rates and the current purchasing power parities obtained theoretically by calculation.

The Importance of the Purchasing Power Parity Theory.—In spite of these drawbacks, the purchasing power parity theory of the exchanges is of the greatest importance inasmuch as it is the only theory which is applicable to all types of currencies, to all theories of money, and to all conditions of the exchanges. It is the only theory which explains the relationship between currencies which are on an effective gold standard as well as the relationship between those which are hopelessly depreciated through the issue of inconvertible paper.

By applying it, in conjunction with the speculative factors already explained, we are enabled to appreciate why, during the years after the War, the exchanges on Germany soared to fantastic heights, whereas those on the United States remained for several years very favourable to that country. The issue of inconvertible notes to the extent of billions of marks by the German Government caused the purchasing power of the mark to become practically negligible. No sensible, well-informed people in this or any other country would buy marks for the simple reason that they had become valueless; marks would buy nothing in the world outside Germany. On the other hand, the dollar reached a position of pre-eminence above all other currencies by reason of its command over goods and services throughout the world. People in this country and other countries were willing to pay more than usual for the right to possess dollars, because the purchasing power of the dollar was second to none.

Moreover, the theory is superior to the old balance of trade theory of the exchanges enunciated by Goschen and his successors because it is more fundamental. It goes further than a mere statement of the fairly obvious fact that the rates of exchange are determined by the balance of indebtedness. *It explains how that balance of trade or of indebtedness is itself determined* The rates of exchange between any two countries are determined in the long run, as we have seen, by relative price levels of the two countries. If the rates of exchange do not properly reflect the relative position of those price levels, goods and money tend to flow between the two countries in such direction that equilibrium tends to be reached at the Purchasing Power Parity. In other words, the direction of trade and the flow of capital are changed until the rates of exchange truly represent the relation between the values of the currencies of the countries engaged in that trade.

If two countries rigidly maintain the gold standard, the exchange rate between them will fluctuate only slightly on either side of the

mint par between the limits imposed by the gold points, i.e., the cost of buying gold in one country and selling it in another. If both countries give up the gold standard, and inflate their currencies *to the same extent* by the issue of inconvertible paper money, then the rate of exchange between them will still remain near the mint parity because the *relative* purchasing power of their currencies is unchanged and there is no divergence between the values of the two currencies sufficient to warrant a change in the direction of trade. But if one of those countries resorts to further inflation whilst the other country maintains the existing position, then forces at once begin to bring about an entirely new purchasing power parity and a change in the direction of trade.

Suppose that country A maintains the existing value of her currency, whereas country B doubles the quantity of her inconvertible currency. Prices in A remain as they were, whereas prices in B are doubled. This will modify the purchasing power parity between the two currencies and make B a good country in which A may sell goods but a bad country in which A may buy. B's imports from A are encouraged and her exports are discouraged, while money flows from B to A. Thus the balance of trade between the two countries is changed and forces are set in motion which tend to bring about an adjustment at the previous position.

Finally, we may observe that a grasp of the purchasing power parity theory is essential to an understanding of the basis on which the reorganisation of the world's currencies has had to be effected in consequence of the War, and, as we shall see later, it is essential also to an understanding of the methods now adopted by the world's central banks to control the credit position and regulate the exchange rates of their respective countries.

CHAPTER IV

FOREIGN EXCHANGE MARKETS

JUST as there are markets for the purchase and sale of the raw materials of commerce, so, also, in the financial centres of the world there are foreign exchange markets, where foreign currencies are bought and sold. In recent years, considerable changes have taken place not only in the organisation and structure of these markets, but also in the methods of transacting business between them. The local, personal markets in the various financial centres, where transactions were effected by informal conversation and bargaining between the dealers, are steadily losing much of their importance. In their place we have a complicated system of exchange and interchange conducted by telephone, telegraph and cable, and a thousand operations where once there were but a few.

Conditions Before the War.—Before the Great War the cancellation of the multitude of debts arising between nations having a great variety of monetary units and systems—a task which at first sight would appear well-nigh hopeless—had reduced itself to the comparatively simple process of buying and selling bills of exchange, which represented the debts due by the nationals of the various countries to one another. So far as Britain was concerned, the process of settlement was even simpler than in the case of any other country, for her merchants and manufacturers would have little to do with foreign currencies, and, as a result, the vast proportion of her foreign business was conducted in her own currency—sterling.

To understand clearly how this position arose and was allowed to persist, we must revert again to the elementary theory underlying the settlement of debt by means of the bill of exchange, that instrument which, by reason of its simplicity and ready acceptability throughout the world, for a long period of years maintained its pre-eminence as the chief medium for the settlement of international obligations.

To Effect Settlement, One Country Only need Draw.—It is apparent,

if we visualise the merchants of two countries in two aggregates, that because the bills drawn by the creditors of A upon their debtors in B can be purchased and remitted by the debtors of A to pay their creditors in B, only one of the countries need draw upon the other in order to settle the debts arising between them. In practice both countries draw, but in the case of Great Britain the bills drawn by her traders have been for many years past vastly outnumbered by the bills drawn by foreign traders on this country, and, in particular, on London.

London—the World's Chief Financial Centre.—The reason for this is to be found in the fact that, partly by chance, but mainly by hard work, London has established herself as the chief settling place of international indebtedness, the world's foremost financial centre, and, to a great extent, the world's commercial clearing-house. In spite of the tremendous handicap imposed by Britain's part in the world conflict, and in spite of the keen competition of rival centres more happily situated during the Great War, London still retains her leadership, which is attributable to the following main factors:—

- (1) For two centuries British manufacturers and merchants have led the world in industry and foreign trade, and the greater part of the products of the world's industry has been transported in British ships. Great Britain has been the great coloniser of the world, and wherever her sons have penetrated British trade has followed. The world-wide extension of British commerce creates everywhere a demand for bills on London.
- (2) England, more through a happy accident than from settled policy, was the first country in the world to adopt the gold standard, and on the whole, the adoption of the gold standard has given her that great precondition of all industry, viz., a stable currency.
- (3) London is normally the greatest free market for gold in the world. Even before the War, in France, Germany, and other countries, difficulties were usually placed in the way of obtaining gold for export in quantity. A Frenchman in London with a bill of exchange on a London banker can present it to the drawee, take payment in Bank of England notes, and present the notes to the Bank which, by law, is bound to exchange them for gold on demand.*

* Subject to the amount being not less than the minimum at present in force (see Chapter XI).

But although a Frenchman or German may present notes at the Bank of France or the Reichsbank, he may not always expect to receive for them the equivalent in gold.

- (4) British firms, accepting houses, and banks have a world-wide reputation for prudence, sagacity, and integrity. Bills bearing the names of well-known English firms are freely accepted throughout the world, and still more true is this of bills bearing the signatures of our bankers, accepting houses, and brokers.
- (5) London acted as the pioneer in insurance business and her international maritime agencies—in particular Lloyd's—have established themselves in an impregnable position in relationship to the world's shipping and marine insurance business. Thus the safety and security of vast international trading operations are dependent on the financial strength of the London underwriting market, and it stands to the world-wide credit of that market that the confidence therein has never been abused.
- (6) The enormous extent of our commerce and loans to foreign nations has given us large pecuniary interests in every country, and has made the United Kingdom the creditor of the world.

The great profits we have derived from our commerce and the handsome revenues we have received for our shipping, banking, and insurance services to other nations, have created for us that "ability to lend" which has established our financial leadership, while the world-wide use of the sterling bill has compelled every country to maintain balances in London, and has contributed in part to making London the cheapest centre in which to borrow.

In this way we have not only built up a large annual surplus available for investment overseas, but with each new investment our range of customers has extended and our resources have increased, thus strengthening London's position as the market for long-term capital investments and as the centre for that short-term financing so vital to international trade.

Although the War has adversely affected our position in these respects, a half-century of peaceful enterprise will probably restore it to the full.

- (7) The fortunate geographical position of the British Islands

relative to the land masses of the earth; the stability of our Government, and the respect for duly constituted authority usually characteristic of our people; the efficiency of our banking system; and the general reputation enjoyed by persons of British blood for reasonableness and fair-minded dealing have all, in their degree, contributed to consolidate the position won for London by the enterprise of our manufacturers, the technical aptitude of our artisans, and the sound quality of the products of their joint co-operation.

- (8) Finally, we may note a factor which is probably implied in the foregoing enumeration, and that is the wonderful and unique organisation of the London Money Market, particularly its adaptability to changing conditions, its extensive and varied resources, and its pre-eminent discount market, whose members have a knowledge, as remarkable as it is unrivalled, of the names and standing of commercial firms in all parts of the world. A vital requisite for a great financial world centre is a healthy, active, and regular discount market, and the existence in London of such a market, built upon the solid foundations of long experience, sound finance, and unfailing punctuality, augurs well for the future maintenance of London's position as the world's foremost financial centre.

London Bills an International Currency.—The pre-eminent position of London as an international financial centre naturally created a world-wide prestige for the sterling bill of exchange. Bills on London are to be found wherever men trade. They are accepted almost as freely as gold itself, passing throughout the world as a kind of international currency universally taken in payment of debt. It is a world-recognised practice to use such bills not only to settle debts arising from foreign trade in which this country is directly implicated either as exporter or importer, but also to settle a large proportion of the debts arising between foreign nations in respect of goods which never touch our shores. In such circumstances London figures merely as a financing agent, and, of course, exacts a commission for its services in that capacity. Thus a German merchant importing goods, say, from San Francisco, may pay the American exporter by a bill drawn upon a London bank or accepting house. A Chinese merchant selling tea to France may stipulate

in the contract of sale that he shall obtain payment by drawing his bill on a London bank, with which he would expect a credit in his favour to be opened by the French importer. London banks, accepting houses, and large British merchant firms, by accepting bills drawn on them for foreign account, make themselves liable for huge sums in the aggregate, and annually earn considerable sums by way of commission for their services

Settlements with Britain were Initiated Abroad.—This state of affairs is still of great consequence, but in pre-war days, when most of the world's business was settled by bills of exchange, it was particularly important. It meant, in the first place, that the British exporter became accustomed to expect in payment for his goods a bill drawn on and payable in London in sterling, while, on his part, the British importer expected to pay for his goods by being drawn upon in sterling. Neither the London exporter nor the importer troubled much about the rate of exchange. Their contract was to receive or to pay so much sterling. By leaving the exchange operation to the foreigner, the British trader was to a great extent rid of the trouble of buying or selling bills, and he avoided having to quote prices, draw up invoices, and issue catalogues in foreign money. If he was a seller, he quoted and charged in sterling and expected to get the sterling amount, neither more nor less, for his goods. If he was a buyer, he contracted for goods at a price in sterling and paid that and no more. If he drew a bill, he had frequently only his own customer to rely upon for payment, whereas when a bill on London was remitted to him, its due payment was guaranteed by the drawer and by successive indorsers who negotiated the bill.

The Standpoint of the Foreign Merchant.—It was otherwise with the foreign trader who had to sell or buy a bill on London. Variations in the rate of exchange were of great concern to him, since they affected the amount which he had to receive or pay for his bills, and if he was able to make a good bargain when buying or selling bills he reaped the benefit of it. He usually made a study of the exchanges and was well content to accept the chance of snatching an additional profit on the transaction arising from a change in his favour of the rate of exchange. Contracting to sell or to buy at a stated price, he often found that, when it came to receiving payment, or to paying for the goods, he could secure an additional advantage because the exchange on London had moved in his favour. If he was an exporter, he drew and sold his bill as soon as the goods

were shipped, and so quickly recovered the capital invested in the goods, otherwise he would have had to wait for a remittance from London following actual receipt of the goods in this country. If he was an importer, he preferred to buy and remit a bill on London, for the price he had to pay for the bill depended upon his own success at bargaining, whereas the price of a bill drawn on him by his English creditor was generally fixed by the London banker or broker who negotiated the instrument on behalf of the English drawer. Finally, the foreign merchant, wherever his domicile, was always sure of selling a bill on London at a good price, and, *per contra*, a bill on London could be bought in all centres of commerce.

London Exchange Rates were Fixed Abroad.—Other important results ensued. The fact that so great a proportion of the world's foreign exchange settlements were effected by means of the sterling bill, combined with the existence of unrivalled discount facilities on the London Money Market, had established a distinct "business" in sterling exchange, which as likely as not brought profits to the holders quite additional to those arising from trade.

It has, in fact, been estimated that in pre-war days fully nine-tenths of our own trade and as much as one-half of the world's overseas trade were financed by sterling bills. Consequently, our rates of exchange with other nations were determined primarily by the relation between the demand for and the supply of such bills in the exchange markets of the world, and it may be said that the foreign exchange market in former times consisted largely of the market in sterling bills in the principal financial centres. To these centres our financiers were well content to leave a considerable proportion of the risks and profits of exchange business, and incidentally also the fixing of the prevailing rates of exchange on London. The prices of bills on London (i.e., the rates of exchange on London) were fixed in the foreign centres where these bills were sold and negotiated, so that London herself had relatively little to do with deciding at what rates her currency should exchange for the currencies of other nations.

The London Foreign Exchange Market in Pre-War Days.—Such exchange business as was transacted on this side was almost entirely conducted through the medium of a few brokers by the London offices of the foreign and colonial banks and by a small number of old-established exchange bankers. Representatives of these institutions and the brokers met to form the actual bi-weekly market on the Royal Exchange, which was of a similar character to the foreign

exchange markets in the chief Continental centres, although possibly not as important or as geographically extensive in its dealings. In fact, the importance of this market had considerably decreased even before the War, for the brokers had taken to the practice of making daily visits to the offices of the principal banks and of fixing up the exchange transactions for the day by personal interview.

So far as the operations undertaken by the banks were concerned, they consisted chiefly in the purchase and sale of long bills of exchange, and in the issue of drafts on various world centres to meet the demands of the trading community. In addition, Continental bankers made it an important part of their business to invest their surplus funds in bills on other countries—and particularly in bills on Britain—with the object of making profits out of differences in discount rates prevailing abroad as well as out of movements in the rates of exchange with other centres. Arbitrage business was necessarily somewhat limited by reason of the relative stability of the rates of exchange, for movements such as we have been daily accustomed to see during recent years were almost unheard of in more normal circumstances, and such movements as did occur were generally anticipated and provided for in advance. The business of the exchange dealer was, in fact, largely confined to the sale of one form of exchange against exchange of similar kind, as, for example, the sale of banker's demand drafts on one centre against purchases of commercial sight bills on that centre, or the sale of one form of exchange against exchange of a different type, as, for example, the sale of banker's sight drafts or cable transfers against purchases of commercial long bills on the same centre.

Thus the exchange banker conducted a profitable and non-speculative business by supplying drafts to order drawn on his balances with agents in foreign centres, the balances being replenished from time to time by the purchase of such bankers' and commercial long bills or sight drafts as happened to be available. When rates were fairly stable and there was an absence of marked fluctuation, it was not as imperative as it would be under present conditions that the banker should at once cover his sales of exchange by corresponding purchases, but it is clear that if his business of issuing drafts to order was to continue, he had to take steps to maintain his credit balances abroad or to reduce any overdraft which he might have created. In ordinary circumstances ample commercial cover would be available, but in the event of a scarcity of exchange on any centre or centres, resort would be had to the remittance of

securities and ultimately to the transfer of gold or silver bullion, as the case might be.

Two other factors must be mentioned. The first concerns the comparatively restricted market in forward currencies, which was as yet in its infancy, dealings being limited to dollars and—to a much smaller extent—French francs. Secondly, it must be understood that the great majority of transactions were made through the medium of the post. The bulk of remittances were effected by the despatch of cheques and bills by the ordinary mail, those of larger amount consisting of parcels of bills on the centre concerned for collection and negotiation.

The Changes in Recent Years.—Conditions to-day are vastly different. Not only has the attitude of London bankers towards the foreign exchanges had to be revised, but the mechanism of the market has been completely altered and the volume of transactions in foreign currencies—in London as well as in other centres at least as important—has increased to such an extent as can be described only as colossal. In many respects the changes which have taken place are directly attributable to the frequent and violent fluctuations in the rates of exchange consequent upon the uncertainty engendered by the War; on the other hand, they are no doubt traceable in part to that development which was bound to come sooner or later in order that the exigencies of modern commerce should be adequately and efficiently served.

At the end of the nineteenth century, the bill of exchange was still the basis of both internal and external trade, and formed the staple commodity dealt in on the London Foreign Exchange Market. Even before the War, however, the home trader had become too proud to accept a bill and preferred to settle his debts by paying cash or by issuing a cheque against a loan arranged with his banker. This tendency extended to foreign trade during and after the War, when the banks invaded the field of the accepting houses, and undertook to accept bills against credits opened by home and foreign exporters and importers. Many of these bills are drawn at sight, and consequently fewer long bills are made available for money market purposes and for investment by the banks, their place for such purposes being largely taken by Government Treasury bills, representing debt and not commerce.

A New Mechanism.—Possibly the most striking change is that which concerns the mechanism of the market. Nowadays by far the greater proportion of exchange transactions is effected by

telephone, cable, or telegraph. The frequent movements in the rates made necessary the development of rapid means of settlement, and consequently the telephone order in the local market and between proximate centres, and the cable or telegraphic instruction between more distant centres, have largely superseded the long bill as the chief medium of settlement. Most of the world's exchange business now consists, as we have already observed, not essentially in the purchase and sale of bills of exchange on foreign centres, but in the purchase and sale of *rights* to foreign currencies, such rights existing in a variety of forms—as balances or merely credits with banks abroad, bank or Government notes, bills and cheques, securities and bullion.

Actually, of course, no difference exists, for a bill of exchange on a particular country is merely a right to a given amount of the currency of that country; but in practice considerable alteration is involved. Thus one result of the change is that long rates of exchange rarely appear nowadays as *published* quotations, although they are still quoted by the banks to their customers whenever required. Most exchange quotations published at the present time are for telegraphic transfers, or for drafts and cheques, payable at the branches or agencies of the issuing bank.

The payments are effected out of current accounts conducted by all bankers of importance with branches or agents in the foreign places, the accounts being maintained in credit not only by the pre-war method of remitting parcels of commercial bills when they are available, but also by immediate covering transfers made by cable or telegraph. For example, the sale of a T T on New York for \$100,000 would generally be covered immediately by the purchase of a T.T. of corresponding amount, for in the present uncertain state of the world's exchanges rates fluctuate so considerably that bankers are put to the necessity of not keeping too large balances in any centre and of not maintaining an "open" or uncovered position in any currency for longer than is absolutely essential. Only by making immediate provision to cover their commitments—whether purchases or sales—can they hope to avoid serious losses from fluctuations in the rates.

• **The Altered "Internal" Mechanism.**—What may be termed the "internal" mechanism of the market in each centre has also undergone a complete change. In most foreign centres the Bourse, or actual meeting of dealers in exchange, still persists, but it has not a tithe of its former importance. The structure of the London Foreign Exchange Market is dealt with later in this chapter, but at this point

it may be stated that the comparatively leisurely manner of buying and selling bills by personal interview is entirely superseded. The exchange market to-day consists of a certain number of dealers and brokers in constant telephonic communication not only with one another, but also with dealers in other centres, while they are linked up with more distant places by the telegraph and cable. Deals are conducted with amazing rapidity and with startling frequency, the transactions in each important currency aggregating very large sums. So closely connected are the dealers in each centre with those in other places that the adjustment of rates of all Continental markets with those of New York and London is merely the matter of a few minutes.

The Vast Increase in the Volume of Operations.—The vast increase in the volume of exchange transactions is traceable to a number of factors. In the first place, the greater rapidity and efficiency of the exchange mechanism itself has led to considerably increased and more frequent transfers of capital from one country to another in order to take advantage of better interest rates. Secondly, the frequent abnormal movements in the exchanges in the years following the War provoked international speculation in foreign currencies on an enormous scale—in many cases with such detrimental effects that active Government intervention was necessary to abate the evil. These fluctuations had a further and more permanent result, for in conjunction with the world-wide failure of credit which followed as a natural consequence of the War, they produced an almost complete absence of confidence among the traders of the world. In happier times, current accounts between merchants at home and abroad were the rule rather than the exception, long-period credit was given with as much freedom as it was expected, and from time to time remittances were made either on account or to settle the balance outstanding at that particular moment. In times of wildly fluctuating exchanges, however, the majority of trade operations are conducted on a cash basis, remittances being sent and received in respect of almost every item, for it is clear that delay may saddle the creditor with loss not only from the fluctuating exchange, but also from the financial embarrassment of his debtor. Hence, the exchange mechanism had to be organised to deal not only (as in pre-war days) with those operations arising from the settlement of the *balance* of indebtedness, but with the multitude of transactions resulting from the actual *turnover* of business between the nations. This factor proved of considerable importance so far as our own

country was concerned, since the vastly increased business in foreign currencies transacted in London was largely the result of the fact that, in the face of the frequent fluctuations in the rates of exchange, foreign nationals were increasingly disinclined to accept the risks incidental to exchange operations, and consequently insisted upon settlements in their own currencies instead of settlements in sterling.

The Rise of London's Foreign Exchange Departments.—This latter fact was one of the chief reasons for the change in the attitude of London banks towards foreign exchange business, for it meant that facilities had to be provided for the British trader who, no longer able to transact all his foreign business in sterling, had to be prepared to buy and sell in the currencies of other nations. Apart from the fact that the banks were naturally desirous of assisting their customers by the provision of complete exchange facilities, they could not but recognise the vast possibilities of an extension of their exchange business. Prior to 1914 the large joint stock banks kept few, if indeed any at all, operative currency accounts with banks abroad, and foreign business was largely conducted by them through the medium of the London offices of the foreign banks or through the head offices of those English banks then operating abroad. As a rule, settlement was immediately made on a sterling basis, thereby leaving both the exchange risk and the execution of any necessary covering operations to the foreign bank.

All this has now been changed, and all the big banks have of late years either inaugurated or expanded their foreign departments so that at the present time there is practically no class of foreign business which cannot be undertaken by these banks directly with agents or branches in all foreign centres of importance. As a natural result, the London list of exchange quotations has extended from the comparatively small Course of Exchange table of pre-war days to the much more comprehensive Foreign Exchange table of to-day, embracing all the important centres of the world.

In some respects these changes may be regarded as indications of a decline in the prestige of sterling, due in part to the fluctuations already mentioned, but also to its post-War depreciation in terms of gold and to the rise of the American dollar to prominence as an international currency. On the other hand, it cannot be gainsaid that the alterations have benefited our banking institutions by bringing to them a large volume of genuine foreign exchange business which would otherwise have gone to foreign centres, and by adding appreciably to the annual profits they derive from exchange operations.

The Development of the Forward Market.—Finally must be mentioned the striking development in forward transactions, which are such a feature of the foreign exchange market at the present time. Such operations not only enable the banking and trading community to eliminate much of the risk which must necessarily accompany the frequent and sometimes violent movements characteristic of exchange rates in recent years, but also provide a means whereby the dealers can turn to profitable account high rates of interest ruling in other centres. Examples of the type of operation involved are included in Chapter XXIV, while the theory underlying forward exchange is discussed in Chapter IX.

THE LONDON FOREIGN EXCHANGE MARKET TO-DAY.

We may now proceed to consider briefly the structure of the foreign exchange market as it exists in London at the present time. In its chief aspects the organisation is typical of that which exists in the other financial centres of the world, and the description which follows should therefore serve to acquaint the reader still more closely with the mechanism of modern exchange dealing.

In the first place, it must be mentioned that all foreign exchange business in London nowadays passes through the hands of a small body of specialists, who belong to one of two classes—they are either *dealers* or *brokers*. The dealers, who number in all about 150, are the exchange experts in the foreign exchange departments of the British and foreign banks and of the various financial houses in the City, and are engaged throughout the day in the purchase and sale of foreign currencies on behalf of their respective institutions.

The Foreign Exchange Brokers.—As a general rule, present-day exchange operations are not effected directly between the dealers, but through the intermediary of the brokers, of whom there are about forty in the City at the time of writing. Each dealer is in direct telephonic communication with probably thirty brokers, who for a small commission, which usually constitutes their only profit, link up the dealers purchasing a particular currency with other dealers who are in a position to sell it. As a rule, each firm of brokers specialises in a certain group of currencies, and the dealers have direct lines to three or four firms operating in each of the various groups.

Most of these brokers can lay claim to long years of experience as actual exchange brokers, chiefly in connection with the purchase and sale of foreign coupons, bonds, and notes, or as bill brokers in

connection with the purchase and sale of bills of exchange. Others are essentially modern operators who have undertaken the business in consequence of the greatly increased demands for such services in recent years, and it is possible that the stabilisation of rates and the decrease in speculative activity will tend to drive at least some of these out of the business.

The function of the broker is clearly a particularly limited one. He must not buy and sell currency on his own account, and consequently does not shoulder any of the risks incidental to exchange dealing. On the other hand, in spite of the comparative smallness of his commission (varying from $\frac{1}{10}$ to 1 per mille chiefly according to the currency, and usually divisible between the buyer and seller), his earnings in a period of great speculative activity may be very considerable, the extent of his business depending chiefly on his promptitude, alertness, and integrity. But while the broker's chief function is the linking up of supply and demand, generally in relation to a certain number of currencies only, he performs in addition a most important service as arbiter of the rates at which transactions are effected. This is a vital function under present conditions when so large a proportion of operations are conducted by telephone, for the broker is as it were constituted an impartial umpire between the two parties to the bargain, which, it may be added, is generally concluded before the parties concerned are aware of the names of each other. The great utility of this service is clearly demonstrated by the fact that difficulties concerning the rates at which deals are concluded frequently arise in connection with operations between London dealers and those in Continental centres, for in such cases the transactions are usually arranged by telephone without the intervention of a broker, and there is consequently no impartial arbiter of the rate agreed upon.

The Exchange Broker's Organisation.—It is clear that the performance of the comparatively simple functions here described does not necessitate any elaborate office organisation. In fact, the typical arrangement consists of a room containing a long table around which are seated a number of assistants, each of whom has a telephone receiver connected with switchboards from which direct wires emanate to possibly one hundred or more banks in the City. Each assistant transacts business with certain specified banks, and proceeds to discuss business as soon as the name of one of these banks is called by the switchboard operator. If the business is sufficiently large separate rooms may be utilised for different currencies or groups of currencies

Thus one well-known firm has one large department transacting business in dollars only, while another department conducts operations in Continental currencies, and so on.

The actual conduct of business is not particularly difficult, although it is clear that considerable ability is required to bargain accurately and profitably in a room where possibly a dozen telephone conversations are being conducted simultaneously, and especially in view of the fact that the broker must listen to his colleagues with one ear, so as to catch at once any change in the rate in which he is operating, and at the same time carry on a conversation with his client.

The procedure is somewhat as follows. A dealer at one of the large joint stock banks rings through for a rate for the purchase of a given amount of dollars to be delivered in New York on the following day. From his knowledge of the tendency of the market or from the fact that he has offerings of dollars from other clients, the broker is generally in a position to quote a rate at once. Alternatively, he may require time to communicate with his customers in order to determine whether they have the dollars for disposal and if so at what rate.

The success of a broker, however, depends essentially upon his ability to keep pace with and to "read" the market, so that he can immediately supply his clients with reliable two-way prices. His great object is to be "firm" at the prices he quotes, that is, to be prepared to take or to deliver some at least of the currency in question, and if he makes a "firm" price to a dealer he is bound to stand by that price for a reasonable amount of the currency in question, say, \$50,000 or £cs. 250,000.

In order to quote firm prices he relies, of course, on the statements which have been made to him by clients to whom he has spoken just previously, and who reveal themselves as probable buyers or sellers. Should he be taken at his firm price, say, by a seller, he at once communicates with his probable buyer, but if by chance the broker has been too long (usually more than two minutes is considered too long, but sometimes even thirty seconds is long enough for a dealer to cry off) he may find the probable buyer no longer wishes to function. Nevertheless, he is bound to support his price to the selling dealer who "took" him, and must therefore sell the currency which he has accepted, or a reasonable portion of it, as best he can, and make up to the dealer any resulting loss. This, in fact, is the only financial risk which a broker runs, but it will be appreciated

that the amounts involved can be quite considerable if he makes firm prices without due care.

It may be added that sometimes the dealer gives the broker a definite order to buy or to sell a certain amount of a particular currency provided the rate is within a given limit, but, whatever the nature of the transaction, as soon as the rates are agreeable to both parties the bargain is concluded, the broker advises each dealer of the name of the other party, makes a note of the transaction on a book or pad in front of him, and in due course forwards to buyer and seller contract notes in the following forms :—

SPECIMENS OF EXCHANGE BROKERS' CONTRACT NOTES

(1) **To the Buyer**—BOUGHT CONTRACT FORM (on blue tinted paper).

BOUGHT for your a/c.	Value Date, 25th June, 1925.
<i>Fcs. 250,000—T.T. Paris at 106 25.</i>	
OF <i>Royal Bank of Canada, E.C.</i>	
Bro. <i>10s.</i>	
	BLANK, DASH & CO., LTD., FOREIGN EXCHANGE BROKERS, 999, London Wall, E.C. 2.
<i>23rd June, 1925.</i>	

[Pencilled on the reverse is the name of the buyer (British Overseas Bank, Ltd.) to whom the messenger has to deliver the contract.]

(2) **To the Seller**—SOLD CONTRACT FORM (on dead-white paper).

SOLD for your a/c.	Value Date, 25th June, 1925.
<i>•Fcs. 250,000—T.T. Paris at 106·25.</i>	
TO <i>British Overseas Bank, Ltd., London, E.C.</i>	
Bro. <i>10s.</i>	
	BLANK, DASH & CO., LTD., FOREIGN EXCHANGE BROKERS, 999, London Wall, E.C. 2.
<i>23rd June, 1925.</i>	

[The seller's name (Royal Bank of Canada) is pencilled on the reverse as in the other case.]

“**Valeur compensée.**”—These notes give particulars of the amount, the exchange rate, the names of the buyer and seller, and the *value date*. The latter is a special time, usually two or three business days ahead, applicable to the currency in which the bargain is effected, and fixing the actual day on which the currency will be delivered or taken up in the foreign centre at the same time as sterling is paid or received in London. The fixing of the precise date is necessarily important because of the vital effect of interest in all exchange deals, and because any defaulting party to a bargain becomes immediately liable for interest from the value date. Thus the market terms “*valeur compensée*” and “*here and there*” mean that the value date of payment of the sterling and of the foreign currency is “compensated”, or, in other words, that payment on both sides (“here and there”) takes place the same day so that no loss of interest accrues to either party.

The following are the recognised value dates for the principal exchanges at the time of writing:—

New York or Montreal, T.T.	.	Value <i>two</i> days later.
cheque	..	Delivery same day, payment on the following day.
Belgium, France, Scandinavia, Holland, Switzerland, Spain	.	Value <i>two</i> days later.
Italy, Germany, Portugal, Austria, Czecho-Slovakia, India, Japan..		Value <i>three</i> days later
Rumania, Jugo-Slavia, Hungary, Bulgaria, Greece, Finland	.	Value <i>seven</i> days later.
Buenos Aires	..	Value <i>two</i> days later.
Rio de Janeiro	..	Value <i>three</i> days later.

Variations from these recognised value dates are made by mutual consent of the parties, and currencies are even dealt in “*value to-day*”, which implies money here and there on the day the deal is actually transacted. Furthermore, it may be noted that in pre-war days transactions on the important Continental centres, such as Paris, Antwerp, and Brussels, were usually value on the succeeding business day, but at the present time, in consequence of the amount of work occasioned by the vast increase in the number of operations, business in these countries is not generally done for less than two days ahead.

The contract note received by each dealer confirms the amount and rate of the deal, and also the name of the other party to the bargain. It is recognised as conclusive evidence of the contract, which must be fulfilled and cannot thereafter be varied by either party thereto. Consequently, the buyer and seller carefully check the contract notes, and in due course communicate with each other,

confirming the purchase or sale and the delivery dates, and also the names of the agents in the foreign centres by whom and to whom respectively the currency is to be delivered. In the case of deals between the banks, these names are arranged by telephone by the respective "Instructions Departments," soon after each deal is completed.

The agents will be advised by mail, telephone or cable as the case may be, and on the value date the whole transaction is finally completed by a sterling payment between buyer and seller in London, and by the transfer of the relative currency between the agents in the foreign centre. In the event of any default or delay in delivery, interest is charged at prevailing rates against the defaulting party from the value date, as already indicated. It is clear, however, that the omission of the dealer or his foreign agent to conform to the letter of the bargain is a serious matter for the broker and for the other contracting party. Consequently, such happenings are of rare occurrence, but if they do arise they usually result in a refusal by the broker to transact further business.

One other point in relation to the broker may be mentioned, and that is the fact that as a rule he is not put to the necessity of making calculations, mechanical or otherwise, involving the conversion of one currency into another. He is concerned merely with linking up the purchase and sale of a given amount of currency at a given rate, and consequently his only calculation is that necessary to determine the amount of commission or brokerage chargeable to the account of his clients for the transaction of the business.

The Foreign Exchange Dealer.—The foreign exchange dealers in the City include the expert operators in the foreign exchange departments of the London banks and financial houses, together with a few independent firms of dealers in foreign exchange, who act mainly as London exchange agents for banks in other countries.

The functions of the exchange dealer in any institution of repute are of considerable difficulty and of far-reaching importance, for upon him devolve the duties and risks incidental to the purchase and sale of foreign currencies in large amounts, and at the same time the task of conducting arbitrage business through agents in other centres with the object of making profits out of differences in the prevailing rates of exchange. It is therefore not surprising that this work is confined to officials of a high degree of ability, and that even in the largest joint stock banks foreign exchange dealing is usually in the hands of not more than half a dozen operators, each of whom tends

to specialise in a group of currencies or in one important currency. Furthermore, the essentially specialised nature of the dealings has resulted in the concentration of exchange business with India and the Far East in the hands of the London offices of the Eastern banks, and of business with the British Dominions and Colonies in the hands of the London offices of the Dominion and Colonial banks.

The Exchange Dealer's Organisation.—The necessary limitation in the number of dealers in the exchange department has already been mentioned. In some respects this is attributable to the highly responsible nature of the work, but it is also a necessary result of the organisation of the department itself, for not only must the operator be linked up internally with the other departments of the institution concerned and externally with the public exchange for general and foreign calls, but he must also be connected by direct wire with anything up to thirty exchange brokers in the City and with those important customers of the institution who have frequent recourse to foreign exchange transactions. In these circumstances, as so many exchange operations involve the purchase of one currency against sales of another, while much arbitrage business necessitates transactions in two, three, or more different currencies, it would obviously be extremely difficult to co-ordinate the work in the dealers' office if the number of operators were much increased.

In its essentials, the exchange dealers' office does not differ considerably from that of the exchange broker. The dealers are usually to be found seated around a table on which are a number of telephone instruments, and at the end of which is the switchboard linking the department with the various other points mentioned. In front of the operators is an arbitrage calculating machine, the ingenious mechanism of which enables the dealer to convert amounts in one currency into another and to determine equivalent rates and parities with amazing rapidity and extreme accuracy. It can, in fact, be said that this machine has largely supplanted one qualification considered essential in the pre-war exchange operator—that is, the ability to calculate quickly and accurately. At the same time it has minimised the risk of loss resulting from an unfortunate error on the part of the dealer.

In order to record his purchases and sales of various currencies, each operator is provided with a dealer's "*book*," ruled with a number of columns and divided into sections for each currency dealt in, or, alternatively, he may utilise what are known as *position sheets*, one for each of the principal currencies in which he is operating. Pur-

chases of a currency are entered in the "Bought" Column of the sheet or book, while sales are entered in the "Sold" Column, and as each operation is effected (or periodically as the case may be according to the currency concerned) a balance is struck so that the dealer can determine at a glance his "position" in the relative currency, i.e., whether his purchases balance his sales of the particular currency, or whether he has oversold or overbought in that currency. Sometimes separate sheets or separate columns are used for *spot* and *forward* deals, so that the operator has no difficulty in summing up his position in either of these two important divisions of his work.

In addition to the position sheets, the dealer is provided also with lists of all the important foreign exchange centres, against each of which he notes the prevailing rate of exchange as it is advised to him from time to time in the course of the day.

At this point it may be mentioned that although the dealer is linked by private wire with the brokers with whom he transacts most of his business, he is not as a rule in direct communication with any of the other dealers in London. In the same way, although the brokers are directly linked up with quite a number of dealers in the City, they are never connected by private wire with one another.

A Typical Day in the Exchange Department.—The actual procedure of exchange dealing may be best explained by a consideration of the operations of the dealers during a typical business day. On their arrival at the office at about 9.30 a.m., the first duty of the operators is to examine all letters and cables from dealers and correspondents in other centres and from local customers. The latter will contain orders for spot or forward purchases and sales of various currencies, either for business or speculative purposes, while the former will contain similar orders and offers, some of them with definite limits for the transactions and others with instructions to buy or sell at the best rates obtainable. (See Chapter XXII.)

The first hour or so will be spent by the dealers in "feeling" the market, by ascertaining from the brokers and from Continental friends the opening exchange rates for the day and the general opinion of the "tendency", notes of the quotations being made by each operator on the list of currencies before him. When the list is complete, copies thereof are sent to the various departments for their guidance during the day, but as a rule transactions are not based on these rates without reference being made to the Exchange

Department for confirmation and for the recording of the transaction on the position sheets.

During this time the dealers will receive advice from the Accounts Department of the position of their currency balances in foreign centres and the extent of their forward commitments in the currency concerned, and they will also receive the first notifications from the other foreign departments of the early transactions effected and of important payments and receipts from and to the *nostro* accounts abroad. The dealers take careful details of the various amounts, and having ascertained the balance in each currency, enter such balances on the relative position sheets, after which they are ready to get to grips with the day's operations.

Orders from customers, branches, and correspondents at home and abroad are now continually coming in by letter, telegraph, telephone and cable, and the dealers are unceasingly "plugging in" to the various brokers for rates and entering into the necessary currency deals, although it should be added that an appreciable number of deals are transacted by telephone direct with the banks in the chief Continental centres and without the intervention of the brokers.

Possibly the chief business of the dealer consists in the purchase of currency in the form of bills, drafts, and credits with foreign banks, in order to dispose of the currency balances so created at higher prices (i.e., better *selling* rates) in the form of drafts or telegraphic transfers issued by his own bank. Generally speaking, operations of this kind are of a non-speculative character, for the dealer does not, as a rule, offer to sell exchange to customers or to agents unless he is sure that he can immediately cover such sales by corresponding purchases, while, on the other hand, he does not usually purchase exchange in any form unless he knows that he can at once dispose of his balance at a reasonable profit.

When the dealer is asked by a customer for a rate for any currency, he will as a rule quote two rates, one for buying and the other for selling, the quotations necessarily depending upon the actual state of the market and of his own currency balances at that particular moment. It is a characteristic of the really expert operator that he will so far rely upon his ability to cover as to be prepared almost at any time to give an immediate quotation in the currency wherein he specialises, whereas the less efficient dealer will frequently safeguard himself before quoting "firm" by obtaining a rate for the requisite currency from a broker.

Demanding if anything a greater degree of expertness than the operations on behalf of customers and foreign agents, are the arbitrage deals undertaken by the operator with his foreign agents in such centres as New York, Paris, Amsterdam, Brussels, and Berne, in order to profit from differences in the prevailing rates of interest and of exchange. These operations are often extremely intricate, and at the present time consist largely in the investment of funds in other centres in order to take advantage of higher rates for money, most of the transfers being effected by the purchase of spot currency against forward sales and *vice versa*, as is illustrated by the practical examples at the end of Chapter XXIV. The skill required to institute and to carry through such transactions in a room where a dozen or more telephones are unceasingly buzzing and where other operators are working for dear life is usually a matter of amazement to anyone unacquainted with the procedure.

Market Deals.—In addition to the long-distance arbitrage operations and the deals on account of clients, much of the energy of the dealer is applied to what are known as “market deals” between the various dealers in the City and on account of their respective institutions. Such deals consist of purchases and sales of currencies undertaken through the brokers with the object of profiting from temporary or *anticipated* movements in the rates. Thus the operator may have reason to believe that a currency will shortly appreciate, and accordingly takes steps to increase his holdings thereof by purchases on the market. Clearly, operations of this kind partake of the nature of speculation, and must accordingly be regulated by considerable prudence and foresight. The experienced operator is, however, prompt to take advantage of his estimation of the likely influence on the market of rumour and sentiment, of social and political complications, and of large purchases or sales made by other operators, at home or abroad. But while he is thus expected to utilise his knowledge and experience to the best advantage, it is not his business to enter into currency commitments for any long period ahead, even though his anticipations may be based on the soundest considerations, for the first object of the big banks is not to enter into speculative operations in foreign exchange but to provide exchange facilities for their customers. It is therefore unlikely that a dealer would be favoured who was prone to carry large uncovered balances in any currency or currencies.

Whatever the object of the operation, as soon as any currency is bought or sold a record is made by the dealer on the relative

currency position sheet, and full details of the transactions are entered on slips which are passed forward to the dealers' clerical assistants, who record them in the respective books and, in the case of "market" deals, carry out the subsequent routine work of checking the contract notes received from the brokers, confirming with the other party to the bargain, advising the agent abroad to be prepared to pay or to receive the requisite currency, and paying or receiving the sterling equivalent in London on the value date.

The Dealer's Position Sheet.—The dealer's position sheet in any currency is arranged so that he can see at a glance how he stands

Dealers' Currency Position Sheet.

As at Close of Business, 27th March, 19 . . .

	Spot		Forward		Final	Holds	Specifica- tion of Balances.	Remarks.
	Sold	Bought	Sold	Bought				
Belgas								
German marks								
French francs								
Swiss francs								
Dutch florins								
Danish kroner								
Norwegian kroner								
Swedish kronor								
Pesetas . . .								
Lire . . .								
Canadian dollars								
American dollars								
Austrian schillings								
Czecho kronen								
Drachmae								
Lei . . .								
Finnish marks								
Portuguese escudos								
Zloty . . .								
Indian rupees								
Colombo rupees								
Buenos Aires pesos								

in relation to that currency, and so that he can take steps to cover himself accordingly. This does not mean that bought and sold transactions are covered up item by item by deals in the opposite direction. On the contrary, a running position is maintained throughout the day, always on the basis, however, that too large a balance, debit or credit, is not outstanding in any one currency at any particular time. As a general rule the aim of the dealer is to end the day with a "level" book; in other words, he endeavours so to arrange his purchases and sales that there is no appreciable outstanding balance, debit or credit, against him in respect of any currency or currencies.

When the day's business is completed, the dealer compiles a statement of his general currency position for the guidance of himself and of his colleagues at the opening of business on the following day. A specimen of the type of form used for this purpose appears on page 82.

In order to ascertain the position relative to each currency at the close of the day, the balances disclosed by the position sheets are compared with the currency balances extracted from the ledgers and forward currency records, and any discrepancy, caused by items

17th June, 19..

French Francs.

	CURRENCY			STERLING		
		Fcs.	c		£	s. d.
Spot balances from preceding day	<i>Bt or Sold</i>	6,784,943	25	<i>Dr. or Cr.</i>	55,522	17 4
Currency bought during day ..		14,077,874	50	<i>Dr.</i>	113,302	16 3
Currency sold during day ..		13,874,265	95	<i>Cr.</i>	111,889	4 10
Spot balances as under ..	<i>Bt or Sold</i>	6,988,551	80	<i>Dr. or Cr.</i>	56,936	9 4
Total bought forward		59,076,243	00	<i>Dr.</i>	475,241	1 11
Total sold forward		66,083,569	00	<i>Cr.</i>	532,502	11 5
Final position overbought or oversold	<i>Bt or Sold</i>	18,774	20	<i>Dr. or Cr.</i>	425	0 2
Present sterling value @ 124 10					151	5 10
Profit or Loss to date		Profit			£273	14 4
Spot Currency Balances consist of—						
On Current Account		1,894,551			c.	80
On Deposit Account		4,000,000				
Undue Bills, etc.		1,094,000				
		6,988,551				80

too small to be recorded by the dealers, is adjusted on their position sheets.

These returns extracted from the ledgers are usually somewhat on the lines of the table given above.

The table shows an uncovered position of Fcs. 18774·20 short, and for practical purposes the book would be considered as "level". The profit is arrived at by ascertaining what it would cost to purchase the necessary francs at the current rate of 124·10, and this gives £151. According to the books there is a total of £425 available, so that the difference of £273 represents the profit to date on

transactions in French currency. Unless the amount is considerable the uncovered currency is not actually purchased each day, but is carried forward as the opening figure on the next day's position sheet.

The item "Spot Currency" represents that amount in French francs which has been or is in course of being paid for, whereas the items "Bought forward" and "Sold forward" are the totals of forward contracts outstanding. Profits are taken out of the account periodically—weekly, monthly, or half-yearly, as the case may be—and the figure of £273 represents the profit on French franc deals since the profits were last taken out of the account.

It will be understood that although the profits on non-speculative operations are necessarily limited, they nevertheless amount to a considerable total when the transactions are numerous and a large turnover is involved. Furthermore, it must be remembered that, apart from the balances actually carried in foreign centres, the capital involved is not appreciable, for unless he deliberately runs an open position, or has to cover heavy forward sales by spot purchases, the dealer sells exchange against exchange which he has bought, and endeavours so to arrange his book that his sales balance his purchases when the day's business is completed.

The Challenge to London's Financial Leadership.—The commanding position attained by London as the centre of the world's exchanges and financial mechanism has in recent years been seriously challenged by New York. The stress of four years of warfare, during which the economic resources of this country were strained almost to breaking point, placed her at a serious disadvantage compared with the United States, whose participation in the War, though effective, came only towards the end.

In the years prior to the War, America was a large borrower from Europe, and particularly from this country, while her citizens found ample outlets for the investment of their savings in the ever-developing industries of their own land. Furthermore, the existence in that country of various legal and customary restrictions on banking and discounting operations considerably limited the extent to which dollar bills were used in international trade.

In consequence of the Great War conditions were entirely changed. Britain's annual trading surplus was largely reduced, her ability to lend abroad was considerably lessened, her American securities were heavily sold, and for several years the pound sterling was divorced from gold. On the other hand, the United States established a large

annual trading balance in her own favour, and consequently became a vast creditor of this and of other countries. The reluctance of the American citizen to invest his savings overseas tended to diminish with his greater realisation of the financial strength of his own country, and with his gradual appreciation of the financial weakness of other nations.

Thus the great resources of the New York market attracted to that centre much of the business of long-term financing (i.e., by long-period loans to foreign States and municipalities) and of short-term financing (i.e., by bills and transfers of bankers' funds) which formerly flowed naturally to London. To promote this result numerous amendments were made in the Federal Reserve Laws and in American banking practice, while the use of the dollar in international trade was carefully encouraged by leading American financiers.

But, in spite of these facts, the opinion may be hazarded that, given freedom from further war, industrial peace at home, and the cordial co-operation of employer and employed, there is little reason to fear that the pound sterling will be ousted by the dollar from its position as the world's chief medium of exchange.

The international strength of sterling is a tradition; it depends on a world-wide reputation built upon long years of service. The unrivalled discount facilities of the London market are the product of a wealth of experience and of an accumulation of expert knowledge reaped from years of careful work, and with these facilities those offered in the United States cannot compare. Only very gradually could such an organisation—as remarkable as it is efficient—be acquired by New York or by any other centre, and in the meantime it appears that the traders of the world will continue to use that medium which has proved its worth and which suits them best.

Britain's return to the gold standard in 1925 was a step of the most vital importance in the re-establishment of her financial leadership, and, while it is true that her strong competitors have been much favoured by circumstances, London's remarkable facilities and established reputation have made effective competition difficult to maintain. Better evidence of this could not be adduced than the following remarks of a well-known New York banker (made before our re-establishment of the free gold market in 1925):—

“It is well enough to say that America is the only free-gold market in the world, and that exchange drawn in dollars is the only exchange that can in fact be collected in gold. That is the theory, and if practical results always followed theoretical principles every-

thing would be lovely, but the practical results which are actually occurring are that traders everywhere consider first the case of disposing of whatever exchange or other forms of credit that come into their hands, and seldom or never consider the more or less academic question of final payment in gold. They know that sterling bills always can find a market and of all world currencies sterling moves freest and quickest. To make dollar exchange the peer of sterling exchange in carrying on the world's business requires first of all the establishment of an open discount market in New York with large enough facilities to instantly absorb any amount of paper that may be offered. The first step in the establishment of such a market will have to be the removal of the restrictions which now bar foreign banks from operating in a broad way in the New York market, or of establishing branches here. What is now needed is to quickly set about the task of rebuilding world confidence in dollar credits and to make the facilities for handling and disposing of them as readily available as would be true in the case of sterling."

New York's lack of an organised discount market has thus largely accounted for her failure to maintain the favourable position in which she was placed in consequence of the Great War, and in a similar manner, the restrictions imposed in Amsterdam on the discounting of foreign bills and on the operations of foreign banking institutions have had the effect of limiting the extent to which that centre—now very important internationally largely by reason of Holland's position as a neutral "go-between" during the War—has been able to attract business which, in normal circumstances, would doubtless find its way to London.

THE NEW YORK FOREIGN EXCHANGE MARKET.

The organisation and working of the Foreign Exchange Market in New York is in many important respects similar to that of London. There is no local, personal market corresponding to the Bourse which still exists in the continental centres, but, as is the case in London, there is an elaborate system of telephonic communication between the sixty or so brokers and the foreign exchange dealers who together constitute the personnel of the market.

The market in New York opens at 9 a.m., which corresponds to about 2 p.m. English time, and explains the afternoon rush on the London market when the first cables from New York commence to come in giving the rates at which that market opens business. As in London, the bulk of the business in New York is transacted

in the latter half of the day, and although the market is timed to close at 5 p.m., operations are frequently carried on long after that hour, particularly in "boom" periods. New York, like London, fixes the rates of exchange for the whole country, and, just as in this country banks and dealers in the important provincial towns are connected directly by telephone with the London market, so also are the New York brokers and dealers linked by direct private lines to banks and agencies in Boston, Chicago, Philadelphia, and other important centres.

The method of dealing and settling is almost exactly the same as that of the London market, the vast majority of operations being conducted through the intermediary of specialised brokers, who work on a commission basis, a smaller proportion being effected directly between the exchange dealers. There are, however, one or two special features in the New York market. In the first place, some of the brokers work, like our stock jobbers, not for a fixed commission, but for a "*turn*", i.e., they buy and sell on their own account and their profit (or loss as the case may be) consists of the difference between the prices at which they buy and sell. In such circumstances, however, the name of the broker himself does not appear as a party to the bargain, since it is customary for the broker to make an arrangement with his banker whereby the latter, in return for an agreed commission, allows his name to be given by the broker as that of the other party to the bargain.

Another point of difference is that in the New York market the broker's commission is ordinarily paid by the seller of the currency, and is not always halved between buyer and seller as is almost invariably the case in London. Moreover, although commercial firms in London rarely if ever transact business directly with the exchange brokers, it is a common occurrence for such firms in New York to deal directly with brokers without the intervention of the banks, buying and selling foreign currencies according to their requirements and, in particular, selling to the brokers sterling long bills drawn against exports of produce to this country and other European countries.

• Mention has already been made of the challenge made by New York to London's financial leadership. The opinion has been expressed that London will successfully maintain her position, but there is little doubt that, as time goes on, competition between the two centres will become increasingly keen. The vast financial resources of the United States, the world-wide recognition of the

strength of the "almighty" dollar, and the dependence of Europe on American banking and monetary policy, are factors which have given, and will in the future tend increasingly to give, the New York foreign exchange market a position of very considerable prominence. This tendency is accentuated by the unremitting efforts being made by American bankers and financiers to improve the facilities offered by the New York Money Market. Undoubtedly, the resources, imagination and necessary business capacity are there. Experience alone is lacking and great efforts are being made to remedy this deficiency.

THE PARIS FOREIGN EXCHANGE MARKET.

The structure of the Foreign Exchange Market in Paris is typical of the markets of the principal continental centres. While the bulk of operations, as in London and New York, are conducted by telephone between dealers and brokers, the position is complicated by the existence of a local market on the Paris exchange or "Bourse". Thus, although a large proportion of foreign exchange business is transacted at the Bourse during the time it is open from 1.15 p.m. to 3.15 p.m., considerable dealing takes place by telephone between the dealers outside these hours.

Operations are conducted by the foreign exchange dealers either direct or through the intermediary of brokers, the former method being rather more usual on the Continent than in London and New York. Commercial firms ordinarily pass their exchange business through the hands of the banks, but certain important houses deal direct with the brokers specialising in the currencies with which they are intimately concerned. In respect of all transactions which take place on the Bourse, contract notes are passed to an official recorder who occupies a large room in the centre of the exchange. His business is to take a note of the details of each transaction, with the object not only of providing an independent check on the dealings as between the parties thereto, but also of obtaining a record for statistical and other purposes. After the contract note has been recorded it is officially stamped and passed back to the dealer or broker concerned.

Foreign exchange brokers in Paris do not work on a commission basis in the same way as the brokers in London and New York. Instead, they work for a turn between buying and selling prices which is known as "*aval*", this difference being paid to the broker by the buyer of the currency.

Conditions arising out of the World War accentuated in striking

fashion the peculiar subservience of the foreign exchange market in Paris to that of London. Dealers in the two centres are in the most constant and intimate relationship by telephone and telegraph, and although Paris forms the main link between other Continental centres and the outside world, her rates of exchange are based almost entirely on those ruling in the London market, while many of her brokers and dealers transact business at London prices. Moreover, since London is the world's leading foreign exchange market and acts as a bridge between the Continent and the rest of the world, in particular the United States, it follows as a natural consequence that the majority of operations on the Paris market are in sterling. Naturally this fact, together with the fact that Paris is closely connected by telephone and telegraph with all important Continental centres, accounts for the expeditious manner in which London dealers are able to conduct their very extensive arbitrage business in Continental currencies.

THE EXCHANGE MARKETS IN THE FUTURE.

It is hoped that the foregoing brief summary of the organisation of the world's principal foreign exchange markets and of the procedure in a London exchange dealer's office will enable the reader to appreciate the remarkable mechanism which has sprung up in recent years to cope with the vast increase in foreign exchange business. On reconsidering the arrangements which we have described, it will be seen that the purchase and sale of bills and the issue of drafts is still an important section of the exchange organisation, but that the prevailing rates are influenced by a great variety of additional factors. Nevertheless, by reason of its unrivalled adaptability for the postponement of payment and for the transfer of capital, the bill of exchange will no doubt continue to be used by the ordinary trader for his foreign settlements, and, in the future as in the past, the exchange operator will rely for a considerable part of his foreign balances on the proceeds of bills sent overseas for collection and negotiation. And while immediate changes in the rates will be determined, as we have endeavoured to show, by the variety of factors which influence the amount and frequency of the offerings and purchases made by the dealers, there is little doubt that rates will be considerably influenced in the future, as they were in pre-war days, by the quantity of commercial bills on offer.

The restoration of more stable monetary conditions throughout the world has already had important effects on the foreign exchange

market in London as in other centres. The extensive War and post-War exchange mechanism was to a great extent the product of a period of wide fluctuations and distressing uncertainties. Now, however, the principal countries of the world are again on the gold standard, their exchange rates are relatively stable, and the gold points between them are once again operative. Although genuine exchange business continues—and will continue—on a much larger scale than in pre-war days, yet the number and magnitude of the operations now bear little comparison with the enormous volume of business transacted in the years immediately following the Great War. As a result, staffs have been ruthlessly cut down in the offices of both brokers and dealers, while the large foreign departments organised in London and other centres are but skeletons of their former selves. In London especially, it is likely that this tendency will continue, for as sterling reverts to its old eminence as an international means of payment, we may anticipate that sterling settlements both by this country and also between foreign countries will once again be the rule.

It must be remembered, also, that when fluctuations in the rates are confined within the relatively small compass of the specie points, profits are reduced to a minimum and arbitrage business is extremely competitive. In such circumstances, the dealers have to work with very narrow margins, while the banks have to rest content with a fractional profit on their operations. Indeed, the tendency appears to be that the Exchange Departments of the great banks will become merely "service" departments, run not so much to make profits on the exchanges as to secure ordinary banking business. At least one bank has already gone so far as to instruct its dealers to quote market rates without a margin of profit. "Inward Collections" facilities, in particular, are often *franco*, and especially where the foreign institution maintains an active sterling account with the Foreign Branch. Clearly, the extension of this policy must ultimately have adverse effects on the small purely foreign banks in London, and also on the London offices of banks established abroad.

At the same time, it is unlikely that the great banks in this country, having once concentrated their attention on foreign exchange operations, will in any way loose their hold on the business, while there is little doubt that the recognised advantages of the telephone, telegraph, and cable for banking and investment operations will retain for these instruments, and for those who are expert in such operations, a considerable proportion of the exchange business of the future.

CHAPTER V

EXCHANGE MAXIMS AND TERMINOLOGY: DEALING IN EXCHANGE

THE outflow of gold from a gold standard country is regarded with disfavour, especially if it is of such strength as to lower the nation's reserve of that metal beyond what is considered adequate to support its credit system, ensure financial stability, and provide a sufficient margin for contingencies. A strong gold reserve permits a low rate of interest for loanable capital, and, inasmuch as industry is largely conducted on borrowed capital, a low interest rate facilitates trade. For this reason exchange rates which approach or go beyond the *gold export point* are termed *unfavourable*, while those approaching or passing the *import gold point* are termed *favourable*.

In England, most rates are quoted in foreign money per £1, and, as explained in Chapter III, the *outgoing* specie points to countries so quoted are *below* the Mint Par, whereas the *incoming* points are *above* the Mint Par. That being so, rates moving downward from the Mint Par are unfavourable to us, and those moving upward from the Mint Par are favourable. When therefore a rate is quoted in foreign money per £, the maxim to be remembered for all calculations is:—

“ High rates are for us, low rates against us.”

And this maxim holds good for any country, provided the rate of exchange is quoted in the same way, i.e., so much foreign currency for each unit of the home currency.

Buyers or Sellers.—Besides being true from the national point of view, the above maxim is true from the standpoint of the buyer of foreign currency. A London dealer, for example, who is buying a draft on Paris for Fcs. 100,000 is far better pleased if he obtains 126 francs for every £1 he pays than if he gets only 125 francs for £1, for as against the £800 which he pays in the latter case, he pays only £793 12s 6d. in the former. The seller looks at the matter from an

opposite point of view to the buyer. the fewer francs he gives for each £1, the better for him. If, then, we are buying foreign currency, high rates are favourable, but, if we are selling foreign currency, low rates are the best for us. From this we deduce another most useful and easily remembered maxim, true for all quotations in foreign currency per home unit, e.g., francs per £1.—

“Buy high, sell low.”

Rates quoted in English Money.—If all rates were quoted in foreign units per £1, fluctuations and prices would not be difficult to understand, for the rules given would apply universally. Some rates, however, are quoted in pence per foreign unit. In these cases the maxims are reversed. An example will make this clear.

The United States exchange is quoted in dollars per £, but sometimes it is given in pence per dollar.

The Mint Par = \$4·8665 per £1, or 49½d per \$

The export gold point :- \$4·845 per £1, or 49½d. per \$.

The import gold point :- \$4·89 per £1, or 49d per \$

Thus the low rate in dollars (\$4·845) and the high rate in sterling (49½d.) is the approximate export gold point from England, and is therefore unfavourable, whereas the high rate in dollars (\$4·89) and the low rate in sterling (49d.) is favourable, and indicates the approximate incoming gold point from New York. Therefore when exchange rates are quoted in our own money, **e.g., so many pence to so much foreign currency:—**

“High rates are against us, and low rates for us,”

and the maxim for buyers and sellers becomes:—

“Buy low, sell high.”

Clearly, it is better for a buyer to give as few pence as possible, and for a seller to get as many pence as possible for the same foreign unit.

Better Class Bills and Remittances.—Certain types of remittance have recognised advantages over others, and therefore command higher prices than others. For instance, a bill representing money due for payment within a few days has advantages for some purposes over a bill payable in three months, because, in the latter case, a much longer time must elapse before a purchaser can obtain payment from the drawee or acceptor.

Again, the parties to some bills are world-renowned banks and firms of known stability, and, naturally, a man buying a bill the payment of which is so guaranteed is prepared to pay more for it than he would pay for an ordinary trade bill, the parties to which, being completely unknown to him, offer less security for payment. On his part, the banker expects to be paid not only for the cost of covering his draft, but also for:—

- (1) Drawing the draft and advising the foreign correspondent on whom he draws.
- (2) Profit for himself and his correspondent.
- (3) The superior quality of the instrument which he sells.

A banker's draft, being first-class paper, can be sold on better terms, and discounted at a lower rate than a trade bill, which belongs to paper of the second order of merit. The competition of bankers amongst themselves keeps down the price of these drafts to its lowest profitable level, the margin of profit accruing to the banker being usually quite small. It is thus clear that, with any quantity of these bankers' drafts ready to be launched on the market as soon as the market rate of exchange has reached a level at which it becomes profitable for remitters to demand them, the seller of an ordinary ready-made trade bill can never ask more for it than the banker would ask for a specially drawn draft.

The Cost to the Banker of Covering his Draft—A banker either draws upon his agent against a cash balance kept with the agent, in which case he loses the interest on the balance, or he may draw first, putting his agent in funds later, and be charged interest and a commission. So long as he has an available balance, all is easy sailing. But there may be more complexity when it comes to replenishing a depleted balance. The banker must then enter the market and purchase sufficient of the currency of the centre concerned to cover his commitments, or he may arrange for an *indirect* transfer of funds (i.e., remittance through a third centre), or he may resort to the remittance of securities or to the shipment of bullion.

Whichever of these methods is adopted, the banker will ensure that the cost is fully covered at any particular time by the price he charges for the drafts and other forms of remittance which he sells to order, and, invariably, the price of the banker's drafts will be higher than that charged for ordinary trade bills of the same tenor in the same currency and payable at the same centre.

Now a higher price for a bill when the rate is quoted in foreign

money per £1, means a lower rate of exchange, and so we get a further maxim:—

“The better the bill, the lower the rate.”

For example, suppose a London dealer is offered two bills for Fcs. 10,000, payable in Paris, one a first-class bank draft, and the other an ordinary trade acceptance. He would offer a rate of, say, 124·05 in the former case, and possibly 124·75 in the latter. Clearly, the seller would get more sterling, i.e., a higher price, for his bank draft.

In the latter case the £1 is worth more francs than in the former, and so the inferior (that is the trade) bill is cheaper to buy than the superior bank draft, just as four candles a shilling are cheaper than three a shilling. But when it comes to a matter of discounting the two bills there will be very little in it, because a higher rate will be charged for discounting the trade bill than for discounting the bank bill.

Rules for Dealing in Foreign Currency.—In applying a rate of exchange to any particular transaction, three questions must be decided:—

1. How is the rate quoted—foreign currency for the home unit or *vice versa*?
2. Are we buying or selling, or are we considering the rate from the national point of view?
3. Are we considering the rate from a foreign, or a home standpoint?

“Home” is used to indicate the country in which we are dealing, and if this is France, British currency is foreign, and the British point of view a foreign point of view.

Remember in dealing with rates of exchange that:—

- (a) What is good for the seller is against the buyer of foreign currency, and *vice versa*.
- (b) What is good from the home standpoint is adverse from the foreign.

Consider again the maxims already given:—

When rates are quoted in foreign currency for the home unit, then

- (a) Buy high, sell low; (b) The better the bill, the lower the rate;
- (c) High rates are for us, low rates against us; (d) High rates are favourable, low rates unfavourable.

Now let us apply these maxims to the following quotations London on Paris, viz., Fcs. 123 per £1, and Fcs. 125 per £1.

- (a) *Buy high*.—It is better to buy 125 francs for each £1 than 123.
Sell low.—It is better to sell 123 francs for each £1 than 125.
- (b) *The better the bill, the lower the rate*.—A bank bill, because it offers better security than a trade bill, will cost more than a trade bill, i.e., fewer francs will be given per £ in the case of the bank bill.
- (c) *High rates are for us : high rates are favourable*.—It is better for an individual remitter when he can obtain Fcs. 125 per £1 instead of Fcs. 123 per £1, and better for us nationally, since the pound sterling is then more valuable and will buy more francs.
- (d) *Low rates are against us : low rates are unfavourable*.—It is worse for an individual remitter when he can obtain only Fcs. 123 per £1 than when he can obtain Fcs. 125 per £1, and worse for us nationally, since the pound sterling is then less valuable and will buy fewer francs.

Now let us consider the above rates from the French point of view, remembering that *French exchange quotations are in the home currency per foreign unit, e.g., Fcs per £, and that therefore the maxims are reversed*.

- (a) *Buy low*.—It is better for a Frenchman to give Fcs. 123 per £1 than Fcs. 125.
Sell high.—At Fcs. 125 per £1 he obtains more francs for a bill in sterling than at Fcs. 123 per £1.
- (b) *The better the bill, the higher the rate*.—A bank bill costing more than a trade bill, the Frenchman will have to give more francs per £1 than he would for a trade bill.
- (c) *Low rates are for us : low rates are favourable*.—To the individual French remitter, because, with the exchange at Fcs. 123 per £1, he can buy each £1 sterling for fewer francs than when the rate stands at Fcs. 125 per £1; and to the nation as a whole, since the franc is then more valuable.
- (d) *High rates are against us : high rates are unfavourable*.—To the individual French remitter, because, with the exchange at Fcs. 125 per £1, each pound sterling costs him more than when the rate stands at Fcs. 123 per £1; and, also from the national point of view, since the franc is then less valuable.

High Price for a Foreign Currency = Low Rate of Exchange.—

When an exchange rate is quoted in foreign currency per home unit, a high price for the currency of a centre so quoted means a low rate of exchange on that centre. The converse is also true: a low price for a foreign currency means a high rate of exchange. It follows, therefore, that a rise in the rate of exchange on a centre so quoted indicates a fall in the price of its currency, and a fall in the rate of exchange a rise in the price of its currency. If, for example, the Paris exchange falls from Fcs. 125 per £1 to Fcs. 123 per £1, then an English buyer of francs payable in Paris must give more sterling for a given number of francs at Fcs. 123 per £1 than at Fcs. 125 per £1. A rise in the rate of exchange on any foreign centre, provided the quotation is in foreign currency per £, favours English buyers of the currency of that centre, and a fall favours English sellers of such currency.

Exchange Terminology : “ Rise ” and “ Fall ”, etc.—Much confusion frequently arises in connection with references to the fluctuations in the exchanges, owing to the ambiguous ways of using the words “ rise ” and “ fall ”, “ appreciation ” or “ depreciation ” in regard to the rates quoted. For instance, if the Paris exchange falls from Fcs 125 to Fcs. 123 per £, exchange dealers in the City would say that francs had “ risen,” i.e., “ appreciated ”. On the other hand, if the New York rate moves from \$4·83 to \$4·86, dealers would say that dollars had “ fallen ” or “ depreciated ”. Such expressions refer to the value of the *foreign currency unit* as measured in our money, and not to the rates of exchange; for, when the latter are quoted on the basis of so many foreign units to the £1, a *rise* in the exchange means a *fall* or *depreciation* in the value of the foreign unit, and *vice versa*.

Other expressions much favoured by City editors in describing the course of foreign exchange rates are “ weak ” and “ firm ”, with their derivatives, “ weakness ”, “ firmer ”, etc. The financial writer who describes the peseta as “ weak ” intends to convey to his readers that the value of the peseta tends to fall, i.e., that the London exchange rate on Madrid shows a tendency to rise. Dollars, again, may be described as having been “ very firm ” on the previous day, an expression intended to indicate that buyers of dollars were much in evidence, and that the price of dollars showed a tendency to rise or appreciate, i.e., that the London rate of exchange on New York was inclined to fall or move against London.

Premium and Discount.—These terms are applied in foreign exchange for several different purposes, and their precise meaning must be judged from the context in which they appear. They are used, in

the first place, to express the value of one currency relative to another currency *having the same mint value* as, for example, to express the value of the South African or Peruvian pound—both of which have precisely the same mint value as our sovereign—relative to our own pound. As a rule, the premium or discount is given as so much per cent. Thus the premium on London exchange in South Africa may be given as “3 %”, while South African currency will be quoted in London at an approximately corresponding discount.

The same method is used to express the position of the exchange rates between Amsterdam and Batavia, both of which have a currency based on the *florin*, and between New York and Montreal, whose dollar units are intrinsically equal. The exchange rates between London and Australia fall within the same category, although the practice is to quote these rates on the basis of a par value of £100. If Melbourne quotes London at £101, the English pound sterling stands at a premium of 1 % in Australia, if at £99, the English pound stands at 1 % discount.

Another important, but rather more confusing use of the terms, is to express the value of one currency relative to another of *different mint value*. For example, when the New York-London rate is unfavourable to this country, it is frequently stated that the pound sterling is “*at a discount*” in New York, or, conversely, that the dollar is “*at a premium*” in London. These statements mean, of course, that the pound sterling purchases in New York or in London less dollars than is represented by the mint par of exchange between the two centres, or, alternatively, that a greater amount in sterling is needed to purchase a given number of dollars than is required at the mint equivalent. In other words, the pound sterling is at a discount in New York when the rate of exchange is below the mint par, and at a premium in terms of dollars when the London-New York rate is above the mint parity of \$4·8665.

In the same way, the franc may be said to be “*at a discount*” in London when the London rate of exchange on Paris is above the mint parity and in favour of this country. The methods of calculating the premium or discount per cent. in such cases are explained in Chapter XXV.

The third important use of the terms is to express the value of forward currency relative to spot currency, a matter which is explained fully in Chapter VII. French francs for delivery in three months' time may be quoted at “5c. premium”, in which case the forward quotation is *dearer* than the spot price by the amount of 5 centimes per

£1, i.e., *less* francs are purchasable per £1 for delivery in three months' time than can be purchased immediately.

Finally, the terms are used in quotations of the forward prices of silver bullion, such prices being given by the market dealers, as explained in Chapter XI, in terms of a premium or discount on the spot price, i.e., the price for immediate delivery of silver bullion against cash.

The Term "Sterling".—Of the term "sterling" it may not be out of place to remark that its connotation has extended from the actual coined sovereign to which it was originally restricted. It is now generally used abroad to denote British standard currency in any exchangeable form in which it appears, e.g., as a bill on London, or as a credit balance in the hands of a London bank. Furthermore, it may be added for the benefit of the reader that a simple statement such as frequently appears in the money article, to the effect that "sterling improved" or "sterling depreciated", has direct reference to the value of the pound sterling in dollars as expressed by the New York-London rate of exchange, this being, of course, the most important rate by which the *gold* value of the pound sterling is now indicated.

"Parity."—The use of this term in such phrases as "the parity of sterling in New York, Paris, etc.", is another frequent source of confusion. It should be observed that "parity" simply means "equality", so that when sterling, for example, is said to be *at parity* in New York or, in any other centre, it simply means that the value of sterling in that centre is the same as its value in London in terms of the foreign currency concerned. If London quotes New York at \$4.85 per £1, while New York quotes London at the same rate, then the value of the pound in terms of dollars (and, of course, of the dollar in terms of pounds) is the same in both centres, i.e., the value and the rates of exchange are *at parity*. In this sense the meaning is that the *direct* rates of exchange between two centres express the same value for each currency in terms of the other.

In other contexts, the term "parity" is frequently used to mean that the *indirect* equivalent of one currency in terms of another is the same as the direct rate quoted at the time. A French banker who is anxious to buy dollars will try and do so through London, or Amsterdam, or Berlin, before buying them directly for francs, but it will frequently happen that the *indirect*, or *arbitrated* rate at which he can purchase dollars by, first of all, buying sterling or florins or marks, is exactly the same as the direct rate, Paris on New York. In such circumstances, the dealer will describe the rates as being "at parity",

and there is no advantage to be gained by operating through another centre. (See Chapters XXIII and XXV)

Finally, we may observe that the term is all too frequently used with much ambiguity to mean *mint parity* or *purchasing power parity*, in which case the sense can be judged only from the context.

Unfortunately, several of the expressions here discussed are used by financial writers and assistant City editors with the greatest carelessness and ambiguity, the same expression being quite frequently applied in the same market report in two entirely different senses. Naturally, such inaccuracies (examples of which are given in Chapter VII) provide constant pitfalls for the student of foreign exchange, and only by a regular perusal of the Foreign Exchange Article can he hope to grasp the truth which the City editor and his assistants clothe in such obscurity.

Method of Settling Foreign Debts.—Before proceeding to discuss the operations which give rise to the purchase and sale of foreign currency by a foreign exchange dealer, we may briefly review the various methods by which a debt owing in a foreign country may be discharged. From the explanation already given of the function of a bill of exchange, it will be clear that there are two basic modes of settlement:—

- (a) The *Debtor* may be left to buy a bill drawn upon some one in the creditor's country and remit it to the creditor, leaving the latter to present the bill to, and obtain payment from, the drawee; or
- (b) The *Creditor* may himself draw a bill of exchange on his foreign debtor, and sell the bill to a local banker or broker. In due course the bill will be presented to, and paid by, the foreign debtor.

Both transactions have the same effect; the creditor receiving and the debtor paying the amount owing, and in both cases the bill of exchange by which the settlement is effected may pass through several hands before it is finally discharged.

Which of the two basic methods is adopted thus depends on whether the debtor or the creditor takes the initiative, but in practice any one of several different forms of remittance is available to both debtor and creditor.

Remittance by the Debtor.—This may take the form of:—

- (a) *A Banker's Draft in the creditor's currency* purchased by the debtor from his own banker, or drawn by the debtor's banker

against a balance on the debtor's Foreign Currency Account (if he has one), and remitted to the creditor.

- (b) *A Banker's Draft in sterling* purchased and remitted in the same way.
- (c) *The Debtor's Own Draft* on his Foreign Currency Account (if he has one), or on his ordinary sterling current account, remitted by him to the creditor.
- (d) *A Cable Transfer* or *T.T.* made by the debtor's banker, whereby payment to the creditor in the foreign centre is made by the bank's agent on receipt of cable or telegraphic instructions sent at the instance of the debtor. The debtor would pay his banker the sterling equivalent, or his Foreign Currency Account would be debited, while the creditor would receive payment in his own currency.
- (e) *A Mail Transfer*, whereby payment is made to the creditor by the agent of the debtor's banker on receipt of mailed instructions from the latter forwarded at the instance of the debtor. In this case, also, the sterling equivalent would be paid over by the debtor or the amount in foreign currency would be debited to his Foreign Currency Account.
- (f) *A Trade Bill* purchased by the debtor from a bill broker or foreign exchange dealer—but this is now unlikely so far as London is concerned.
- (g) *Securities or Coupons*.—In certain circumstances a debtor may send international securities or interest coupons which are realisable in the country and currency of the creditor.
- (h) *Gold*—As a last resort gold may be sent, but, as we have already seen, gold shipments are undertaken only by bankers or bullion brokers who have the requisite appliances and technical knowledge.

Draft by the Creditor.—The creditor may draw, either in sterling or in foreign currency:—

- (a) *On the debtor*, and either sell his bill to a banker, or forward it for collection through his banker with the object of obtaining credit for the proceeds when received.
- (b) *On a bank in the debtor's country* under a credit previously arranged, in which case the bill will also be either (a) sold, or (b) forwarded for collection.
- (c) *On a bank in his own country*, as, for example, when an exporter in this country draws on a London accepting house or bank

under an acceptance credit arranged therewith by a foreign importer.

Since the vast majority of international settlements are now effected through the intermediary of the banks, the most usual method is that in which the debtor buys from his bank for despatch to his creditor a draft, cable transfer, T.T., or mail transfer payable in the country and currency of the creditor.

BUYING AND SELLING EXCHANGE.

In the course of the day's business in the Exchange Department of his bank, the exchange dealer has to apply in practice the various maxims discussed earlier in this chapter. Naturally, the skilful operator makes no conscious reference to such rules, for constant practice and long familiarity with the rates of exchange enable him to decide instantaneously and mechanically whether a rate is favourable to him or otherwise.

In his dealings with the bank's customers and with the Foreign Exchange Market, the operator will be offered and be required to sell rights to foreign currency in a great variety of forms. Apart from the transfer of bullion or securities, money may be sent from one country to another in several ways, and, since the elements of time (involving interest) and security for due payment vary with each form of remittance, different rates of exchange are quoted for each. The bank's cheque or sight draft on a foreign centre is sold at a rate of exchange different from that applied to a bill of exchange payable, say, three months after the date of issue, while the special factors which have to be taken into account in connection with transfers of money by cable or telegraph necessarily affect the rates charged therefor by the banks. For greater convenience and clarity we will consider the rates applied by the operator in (a) the sale of foreign currency and (b) the purchase of foreign currency.

SELLING FOREIGN CURRENCY.

The exchange dealer sells rights to foreign currency in the form of cable transfers, telegraphic transfers, mail transfers, drafts at sight or at fixed periods after date or sight, foreign notes and coin, and letters of credit of various kind.

Cable Transfers and Telegraphic Transfers.—Cable or T.T. rates are quoted by the dealer for transfers by which foreign currency is paid by the bank's agent to a named person abroad on receipt by that

agent of instructions, conveyed by cable or telegraph and authenticated by secret code. As soon as a cable transfer or T.T. is sold by the dealer, he passes the necessary information through to the special department of the Foreign Branch whose business it is to deal with the despatch, authentication, coding, and confirmation of all cable and telegraphic messages, and the payment is made by the bank's foreign agent within a short time of the receipt of the instructions contained in the cable or telegram. The actual time of the payment depends on what is known as the *value date* (see page 76). If the T.T. is sold for "*value to-day*", payment will be made by the foreign agent on the same day, but, as a rule, all T.T. and cables are sold subject to payment on the customary value date, which may be one, two, three, or more days after the day on which the actual deal is effected.

Since this method of payment involves no risk of loss and little or no loss of interest, while the bank has to be covered for its trouble in sending the message and confirming it to its foreign correspondent, the rates charged for cables and T.T.'s are dearer than for any other form of remittance.

The actual rate charged in any particular case depends on several considerations. The chief of these are demand and supply as reflected in the rates of exchange, competition of other dealers, ability profitably to cover his foreign agent making the payment, and the importance of his customer. But, in addition to all this, the dealer naturally charges a higher rate per £1 for making a small than for making a large remittance, because the trouble and expense of sending and confirming the cablegram or telegram is the same in either case. As a rule, the cost of the cable or of the telegraphic message is charged separately to the customer, but, if not, the dealer will ordinarily see that he is covered for this item in the exchange rate at which the transfer is sold.

Naturally, large and influential customers who operate frequently receive greater consideration than less important ones, who operate intermittently, and whilst dealers will cut their rates and ignore cable expenses for large or frequent transactions, they charge dearer rates and require payment of the cable costs for transactions of less consequence.

When a cable or telegraphic transfer is made on behalf of a customer, explicit instructions and an indemnity against delay, etc., are taken from him by the bank on a form worded somewhat as follows:—

Order and Indemnity for Cable Transfer.

TO THE NORTH AND BANK, LTD.,
LOMBARD STREET, E.C.

GENTLEMEN,

We request you to despatch a Telegraphic Message, either literally or in Cypher, direct or through your Agents, to *Ambrose and Son, New York*, based upon the instructions at foot hereof. It is distinctly understood between us that the said message is to be sent entirely at our risk, and that you are not to be held liable for the consequences of any delay, mistake, or omission, which may arise in its transmission, or from its misinterpretation when received, or from errors in identification.

Yours faithfully,
James Brown and Co.

INSTRUCTIONS.

Pay Ambrose and Son, Fifth Avenue, New York, \$100,000 account shipment per Arizona to Brown and Co., London.

Mail Transfers.—Mail Transfer (M/T) rates are quoted by the dealer for making a payment or transfer by instructions forwarded *by mail* to his agent in a foreign centre. Explicit instructions are taken from the customer, who is required to pay the bank the equivalent of the sum to be transferred at the agreed exchange rate. The transfer takes the form of a letter under authorised signatures addressed by the issuing banker to his correspondent, who is instructed to make the payment and to obtain a receipt therefor. Since this form of payment is always under the control of the bank, which bears the incidental expenses and can be called upon to prove payment, the rate of exchange quoted for a mail transfer is slightly higher than that for a sight draft or cheque. On the other hand, the bank issuing the transfer has the use of the money paid by its customer for the period which elapses before payment is made by the foreign agent, and, in view of this, the bank is compelled by the force of competition to allow its customers in the exchange rate interest at the rate being paid on bankers' funds, i.e., on "call money", in the foreign centre to which the remittance is made.

The actual amount of the allowance will depend on the time which must elapse between the issue of the transfer and the anticipated date of payment in the foreign centre. This time will, in turn, depend on the distance and on the date of the next outgoing mail from London to the centre concerned. Suppose that a London banker sells a customer a mail transfer on New York for \$250,000, and that, allowing for the next outgoing mail, the transfer is expected to be paid in New York seven days after the date of sale to the customer. The banker may already have the dollars to his credit in New York, or he may cover

himself at once by purchasing a T.T. on the London market, but, in either case, he obtains the use of \$250,000 in New York for about seven days. Hence he is compelled by the force of competition to allow his customer a fair proportion of the interest earned by the dollars standing to his credit at the current rate being paid in New York on bankers' funds or on short loans.

Sight Drafts and Cheques.—These comprise drafts or cheques payable at sight or demand, issued by the bank to its customers for despatch to their creditors in foreign centres. The draft or cheque is handed to the customer against payment of the equivalent at the agreed rate of exchange, and the onus of transmitting the draft thus falls upon him, whilst his correspondent is put to the necessity of presenting it for payment to the bank's foreign agent. In respect of these remittances, also, the issuing bank has the use of the money during the time the instruments are in transit, and, for this reason, the rates quoted, like those for M/T's, are slightly cheaper than the rates for T.T.'s and cables.

The difference between the sight or cheque rate and the T T rate on the same centre is frequently referred to as the "*spread*" between them and varies from time to time, *chiefly* according to the rate of interest on short-term loans of bankers' funds in the foreign centre and the time of the next outgoing mail to that centre. There is not, however, any fixed or clearly defined relationship between the two rates, and the spread is influenced by such factors as the conditions of demand for the various forms of remittance, the position of the dealer in the currency concerned, the anticipated course of the exchanges, and the likely tendency of interest rates in the foreign centre.

Short Rates.—These are applied to drafts payable within any period up to about ten days. Here again the slight additional allowance made for interest above that involved in sight or demand drafts makes the short rates cheaper than the sight or cheque rates.

Short Sight Rates.—These are sometimes quoted by dealers in New York on Paris, Amsterdam, and Berlin, and relate to drafts payable in those centres eight days after sight. On London, New York quotes a "*Seven-day rate*", in addition to several others.

Letters of Credit.—All important banks in this and other countries now undertake the issue of letters of credit of various kind, whereby their customers are enabled to obtain control of such agreed sums in foreign currency as they may require for business purposes or for pleasure. Thus, a Londoner desirous of spending a month's holiday in Switzerland may arrange with his bank to have a certain sum in

Swiss currency placed at his disposal. The currency is handed to him against payment of its sterling equivalent in the form of *Travellers' Cheques* or *Circular Notes*, or he may be given a *Travelling Letter of Credit* enabling him to draw funds at the Swiss agencies of his own bank.

An operation involving much the same principle arises, for example, when an importer in this country instructs his bank to open a credit in foreign currency in favour of a foreign exporter at a bank in the exporter's own town. The total sum required in the foreign currency is placed at the disposal of the customer against payment of the equivalent in sterling, or against the deposit of satisfactory security, as the bank and customer may agree.

In all such cases the rate of exchange must be fixed by the dealer, and it is his business to see that all transactions of this kind are adequately "covered" by the transfer of funds, if required, to the foreign agent who will be called upon to make the payments. The rates fixed by the dealer for the sale of foreign currency in the form of letters of credit will, of course, be based on prevailing market rates, but they are not cut to such fine margins as rates applied in other cases, and the bank thus secures a slight additional profit from the turn in the exchange.

A large proportion of letters of credit are issued in sterling, and in such cases no exchange operation takes place on this side. The sterling cheque or draft presented by the customer is exchanged (i.e., purchased) by the foreign agent at a rate fixed by him, and is remitted by the agent to the issuing bank for credit to his account.

Foreign Notes and Coins.—The dealer is sometimes called upon to fix a rate of exchange for the sale to a customer of a given amount of foreign currency in the form of notes or coin. In London, as in certain other large centres, these will be obtained from one of the three or four brokers who specialise in the purchase and sale of foreign notes and coin, and, naturally, higher rates will be charged by the dealer to cover the additional trouble and expense of obtaining such items to meet the customer's requirements.

Sales on the Market.—Apart from sales of foreign currency to the bank's own customers, the foreign exchange dealer transacts a considerable amount of business involving sales of foreign currency to other dealers at home and abroad. The dealer who accumulates a balance of foreign currency in the hands of his foreign agents by purchases of bills, etc., from the bank's customers, will naturally endeavour to dispose of that balance on the market to the best advantage. Active operators frequently embark on speculative sales of a currency in the

hope of reaping profit, i.e., they "take a view" that a certain currency is likely to depreciate and sell quantities of that currency in the expectation of being able to purchase at a lower rate sufficient cover to meet their sales. Competition between the dealers necessarily results in the rates applied to such transactions being cut to very fine limits.

PURCHASES OF FOREIGN CURRENCY.

The dealer's purchases of foreign currency follow much the same lines as his sales, although in all cases his buying price will, of course, be lower than the price at which he holds himself ready to sell the same type of remittance. Cable transfers, telegraphic transfers, and mail transfers are quite frequently offered to the dealer by the bank's ordinary customers, and he will from time to time purchase such items from the market, either to replenish his own balances abroad, or because he finds the foreign currency offering at a cheap rate, or because he takes the view that the currency in question has chances of appreciation in value.

Foreign Drafts and Cheques.—Just as the foreign agents of an English bank purchase sterling drafts, traveller's cheques, etc., issued by banks in this country, so also our banks are called upon to purchase from their customers drafts and cheques in foreign money sent by foreign debtors in payment of amounts owing, and also to purchase cheques, etc., in foreign currency presented by foreign visitors to this country. The rate applied by the dealer will, of course, cover the cost of collection of the proceeds, together with any other incidentals, such as stamp duties and postage.

Foreign Coupons and Drawn Bonds.—The increasing internationalisation of securities brings into the hands of the foreign branch a constantly growing quantity of coupons and drawn bonds payable in other currencies. The majority of these items are collected by the banker and the proceeds, less expenses, credited to the customer's sterling or foreign currency account, but quite frequently they are purchased outright by the banker and are collected in due course for his own account. If the latter method is adopted fairly wide rates are applied in order to cover the bank for its trouble in obtaining payment and bringing home the proceeds, involving such costs as listing, packing, postage and insurance (on large parcels).

Purchases of Currency on Behalf of Customers : Foreign Currency Accounts.—During recent years, British traders have resorted to a practice, almost unknown before the War, of opening accounts with

their bankers in foreign currency, with the object of avoiding any loss that might arise from the conversion of foreign currency receipts into sterling (as, for example, when the funds can be used more profitably abroad than at home), and of having foreign currency available at their disposal to make payments abroad.

The British customer opening a Foreign Currency Account naturally deals with the Foreign Branch or Department of his bank, either direct or through the branch at which his ordinary account is kept. But although the Foreign Currency Account records are kept at the Foreign Branch, the foreign currency standing to the customer's credit is actually held abroad and forms part of the bank's balance with its foreign agents. This matter is further discussed in Chapter VI.

Long Bills : Negotiation and Collection.—A considerable proportion of the foreign currency purchased by London bankers is obtained through the negotiation and collection of long bills of exchange drawn by British exporters in respect of goods sent abroad. Such bills may be drawn either in foreign currency or in sterling, and they may be received by the banker from his customers either for *collection* or for *negotiation*. In both cases the banker ensures that he is fully protected by obtaining his customer's signature to a form of authority, worded somewhat as follows, in which the customer agrees to indemnify the bank in the event of non-payment of the bills concerned.

Customer's General Form of Authority for Collection or Negotiation of Foreign Bills.

TO THE NORTHLAND BANK, LTD.,

LOMBARD STREET, E.C.

Date.....

GENTLEMEN,

We may have occasion from time to time to hand you for collection or negotiation Cheques, Drafts, or Bills of Exchange (with or without documents attached) and we hereby agree to your forwarding the same to your agents for the time being for collection or negotiation.

In addition to your ordinary rights as holders of such Cheques, Drafts, or Bills of Exchange, you are authorised to accept in payment thereof a banker's cheque or bankers' cheques on London, and in the event of such cheque or cheques not being paid on presentation to debit the amount to our account with all charges incurred thereon.

It is understood that these transactions are in all respects at our entire risk and responsibility.

Yours faithfully,

James Brown and Co.,

17, Eastcheap, E.C.

Until quite recent years it was the general practice of London bankers and exchange dealers, on negotiating or purchasing long bills

having upwards of three months to run, to apply thereto *long rates of exchange*, the actual rate applied to any particular bill depending on the exact time that must elapse before the bill is paid and the precise element of risk involved as indicated by the standing of the parties to the instrument.

The basis of a long rate is, in fact, the rate of exchange for a sight bill, the long rate being calculated from the short rate by making allowance for interest, stamp duty and risk in the manner explained in Chapter XXI. Naturally, the element of credit is of considerable importance in the case of long bills, since the holder must rely on the parties to the instrument for ultimate payment during the time the bill has to run before reaching maturity. For this reason, a three months' bill drawn or accepted by a bank or first-class financial house commands a better price than an ordinary trade or commercial bill of the same tenor. Moreover, a bank bill is discountable at the market rate of discount and thus gives the holder a higher present value than a trade bill, which is discountable at the higher bank rate.

Such factors are, of course, reflected in the exchange rates applied to long bills, and it is for this reason that two rates are sometimes quoted for long bills, one for the better class bank or financial paper, and the other for trade bills arising from ordinary mercantile transactions. This method was adopted in the now obsolete London Course of Exchange table, a specimen of which is given in Chapter VII.

Nowadays, very few long rates are published in London, since London banks are rarely asked to *sell* long bills to their customers, and it has become their almost invariable practice to negotiate, i.e., buy, long bills by making the necessary adjustment for interest, etc., on the total amount of the instrument in the manner illustrated below

At the same time, London banks will always supply a long rate if they are asked to do so, and it is, therefore, still necessary for the dealer to be able to calculate a long rate from the sight or T.T. rate, quickly and accurately. “

Moreover, it will be found on reference to current lists of exchange quotations that the rates between London and certain South American centres are always given for bills payable 90 days after sight. New York, again, always quotes on London at 60 days' sight as well as for cable and cheque, for the reason that considerable quantities of 60-day bills on London are drawn and negotiated in the United States. (See Tables in Chapter VII.)

In the case of bills received for collection, the banker acts merely as an agent of his customer. The bill is sent to the bank's agent

abroad with a request that he will present it to the foreign drawee for acceptance, and at maturity, for payment, and that he will either arrange for the return remittance of the proceeds, or credit them in the local currency concerned to the London bank's *nostro* account. When advice of payment of the bill is received by the London bank, the sterling equivalent is handed over to the customer, less the bank's charges for collection. If the bill is drawn in sterling, it will be paid in his own currency by the foreign drawee at a rate of exchange agreed upon between him and the collecting agent, while, if the amount of the bill is in foreign currency, that amount will, of course, be paid over. In both cases, however, the London bank will usually arrange to purchase the foreign currency proceeds from its customer at a given rate, crediting the sterling equivalent to the customer's account. The rate applied will necessarily be such as to cover the bank for its trouble in the matter.

In certain cases, the proceeds of foreign bills handed to a banker for collection are credited by him to his customer's Foreign Currency Account, and if, thereafter, the customer wishes at any time to exchange part of his foreign balance for sterling, the conversion is effected at the bank's *current* buying rate for the currency in question.

As a general rule, exporters in this country prefer to negotiate (i.e., sell) their foreign bills rather than to hand them to the bank for collection, since the former method enables them to obtain immediate command over the proceeds instead of having to wait until maturity of the relative instruments. Bills are usually sent for collection only when they are drawn direct on a foreign importer (i.e., and not on a bank abroad) and thus afford the London bank insufficient security to induce him to negotiate them. In passing, it may be pointed out that this disinclination on the part of bankers to negotiate bills drawn on ordinary traders is one of the main reasons for the vogue of the bank draft and bank credit, since the security offered by the name of a well-known bank renders the bill much more readily convertible into cash by sale or discount.

Negotiation of Foreign Bills Drawn in Sterling.—Bills drawn in sterling by drawers in this country on foreign importers are very frequently offered to bankers for negotiation, i.e., sale or discount, the present worth of the bills being credited at once to the customer's account, and the banker being left to collect the proceeds at maturity from the foreign drawee through his agents or correspondents abroad. Such bills will not, of course, be accepted for negotiation unless the bank is satisfied as to the standing of his customer, or as to the

standing of the parties to the bill, or is otherwise secured in case of non-payment.

By drawing his bill in sterling and selling it in this way to a bank, the exporter frees himself from all risk of loss through fluctuation in the exchange, and he receives the face amount of his draft *less* an allowance for stamp duty and discount for a period which, in the case of a draft payable at a period after sight, will include (a) the time of the outward mail, (b) the time which the bill has to run, (c) the time of the homeward mail.

Exchange Clauses.—As between drawer and drawee, any loss through exchange fluctuation must be borne by the latter, who, if he has no sterling funds already, will either buy sterling forward or wait until the maturity of the draft. If he waits until the maturity of the bill, the question arises as to the rate of exchange at which he will pay. Frequently, this matter is settled by the wording of the bill itself since it is nowadays usual to include in foreign bills drawn in sterling what is known as an *Exchange Clause*, i.e., a clause prescribing the method of determining the rate of exchange at which the bill is to be paid.

“ **Exchange as per Endorsement.** ”—One of the best known exchange clauses applied to bills drawn in sterling on foreign places is that which requires payment to be made by the foreign drawee at a rate of exchange endorsed on the bill (see Example 7, Chapter II). The endorsement is made by the banker who negotiates the bill and takes the following form:—

“ Pay X.Y. or order, at the rate of . . . for £1 sterling.”

The sterling amount is converted in London into currency at the indicated rate, and the amount as converted is written on the face of the bill, and takes the place of the amount in sterling. The foreign drawee is advised of the rate of exchange at which conversion has been made and so knows precisely what he has to pay. By thus constituting a London banker as it were an impartial referee of the rate of exchange both for drawer and drawee, the English drawer when he sells his bill obtains cash for the full sterling amount of his invoice; he is spared the trouble of quoting prices in foreign currencies, and shifts the speculative part of the bargain on to the foreign buyer. He is freed from all trouble in connection with obtaining payment of the bill and from all risk of exchange fluctuation. Moreover, he receives more by this method than he would obtain by forwarding his bill for collection and paying

charges, or by discounting an unclausd bill for the same amount with a banker.

In spite of its advantages to the British trader, the clause "Exchange as per endorsement" has in recent years fallen into disfavour, and it may be said that, as a general rule, the clause is not now applied except by special arrangement with the drawee. The chief reason for this is that, when exchange rates have fluctuated considerably, foreign drawees have refused to pay at the endorsed rates, particularly when the exchange rate has moved in their favour between the time of endorsement and the date of maturity. In such circumstances, the drawee's acceptance of the endorsed rate naturally precludes his finding a cheaper alternative method of paying the amount owing to the British exporter. Moreover, foreign drawees often object to the application of this clause on the ground that they are required to pay, in addition to the face value of the bill at the indorsed rate of exchange, *interest on that face value for the period that must elapse before maturity*. This is because the negotiating banker, who pays the exporter in sterling the full face amount of the bill, adjusts the rate for conversion into foreign currency to include interest on his money until the bill falls due. In other words, the banker applies to the bill a *tel quel* rate in which he makes due allowance for interest to cover the period during which he will be out of his money.

Naturally, some risk of loss from a movement in the exchange must be borne by the negotiating banker, since he is, of course, buying forward foreign currency with spot sterling. He will, however, safeguard himself by selling remittances against the expected proceeds of the bill, while he will secure a profit, not only in the rates at which he sells those remittances, but also in the endorsed rate of exchange at which he converts the sterling amount.

So far as the banks are concerned, it is not usual or desirable to use the clause "Exchange as per endorsement" on any bills payable abroad which the drawee is likely to meet, or is required to meet, in sterling. From the point of view of the negotiating banker, the negotiation of a bill payable in sterling is not an exchange operation involving the buying and selling of foreign currency at differing prices which yield a profit, but the investment of part of his sterling deposits. In the former case, the banker can look for a profit in the exchange rate; in the latter he can look merely for the interest return on that portion of his funds invested in the overseas bill, and as we have seen, such investments are not sought after by London banks.

Other Exchange Clauses on Sterling Bills.—At the present time

the greater proportion of bills drawn from this country in sterling bear one of the following clauses.—

“ Payable at $\left\{ \begin{array}{l} \text{banker's} \\ \text{the X.Y. Bank's} \end{array} \right\} \text{selling} \left\{ \begin{array}{l} \text{rate for} \\ \text{demand drafts} \end{array} \right\}$
on London on date of payment.”

“ Payable with approved banker's cheque on London for full face value.”

“ Payable at banker's selling rate for $\left\{ \begin{array}{l} \text{Telegraphic Transfers} \\ \text{90 days' sight drafts} \end{array} \right\}$ on
London on date of payment.”

The effect of these clauses is that the foreign drawee must provide in his centre sufficient of his own currency to purchase the requisite sight or T T remittance on London for the face value of the bill, at a rate of exchange fixed by the *collecting* banker, if the latter's name is actually mentioned in the clause (as in the second version of the first clause given above), otherwise the drawee has the option of purchasing the required sterling from any other local bank which will quote him a better rate. Hence, if the drawee is not bound down by the wording of the clause to a rate fixed by any particular banker, he is free to make his own bargain for the return remittance, and he may, of course, arrange the settlement to his own advantage by a forward purchase of sight exchange on London in the way explained in a later chapter. But, whatever the rate applied, the result so far as it concerns the negotiating banker (or the drawer if the bill is being collected), is that he receives the full sterling amount of the bill without any deduction for collection charges.

It should be carefully observed that the clauses provide for payment of the bills at the presenting bank's “ drawing rate ” and not its “ buying ” rate, for the reason that the former rate is less favourable to the foreign drawee than the latter.

The third clause given above is largely used in bills drawn on Eastern countries and on South America, whilst bills on the Colonies having a sterling currency usually bear one of these three clauses. In all these cases the stamp duty and the foreign agent's charges for collection will fall to be paid by the banker or other person sending the bills forward for collection or negotiation, and will be deducted from the sterling proceeds. If, therefore, it is desired to avoid payment of such charges, the clause should indicate that the charges are to be covered by the

payment made by the drawee. The following are some examples of such clauses which are in actual use:—

ON AUSTRALIAN BILLS FOR COLLECTION.

“ Payable at the current rate of exchange for demand drafts on London plus stamp duty.”

“ Payable at current rate of exchange for a demand draft on London, together with all bankers’ charges for collection.”

ON AUSTRALIAN BILLS FOR NEGOTIATION.

“ Payable with exchange and stamps for negotiating bills on the Colonies as per endorsement.”

ON INDIAN AND EASTERN BILLS.

“ Payable at the current rate of exchange for demand drafts on London, together with all bankers’ charges for collection.”

“ Payable at the current rate of exchange for a demand draft on London, together with interest at per cent per annum from date hereof until approximate date of remittance in London plus all collection charges.”

Among other exchange clauses which are frequently employed is also the following —

“ Payable without loss in exchange ”

The effect of this endorsement is practically the same as in the case of the first three clauses, with the exception that the collecting banker is compelled to accept in payment a bank draft in the original currency of the bill, if the drawee chooses to tender it in discharge of the debt. It follows, therefore, that if the bank draft is not purchased through the collecting banker, he loses the “ turn in exchange ” which would otherwise accrue to him if he himself issued the draft or effected a transfer of funds at his own selling rate.

Unclosed Bills Drawn in Sterling.—Bills are sometimes drawn in sterling on foreign centres without the inclusion of an exchange clause, and in such case the bill is paid *at a rate of exchange which is customary* in the foreign centre or in the particular trade out of which the bill arises. For example, bills on Brazil usually contain the clause “ Payable at the presenting bank’s drawing rate for 90 days’ sight drafts on London on date of payment ”, so that a bill on Brazil which was unclosed would nevertheless be paid as if this clause had been included. If no such customary rate exists, the bill will be paid,

according to general usage, at the prevailing rate of exchange in the foreign centre for sight drafts on London on the date of maturity.

Negotiation of Long Bills Drawn in Foreign Currency.—It is now the practice of London bankers who are asked to negotiate a long bill drawn in foreign currency either to credit the sterling equivalent directly to the sterling current account of the holder, or to give in exchange a banker's sight draft or cheque for the present sterling value of the bill, i.e., its true present worth converted into sterling at the prevailing sight rate on the centre where the bill is payable. Occasionally (as when the seller knows by experience that he can get a better exchange rate elsewhere) he asks for payment in the foreign currency, in which case he is given a banker's cheque or sight draft for the true present value of the bill, drawn, in the same currency, on the principal financial centre of the country wherein the bill is payable. If the presenter has a foreign currency account in the currency concerned, he may have the currency equivalent placed to his credit. Alternatively he may sell the bank draft or cheque at the best rate he can get, either at the discounting bank or elsewhere, and thus obtain the sterling equivalent.

In the calculation of the amount to be paid, allowance is made for discount at the rate ruling in the centre in which the bill is payable, and a deduction is made for risk, commission and foreign stamp duty in precisely the same way as if a sterling bill were being discounted. The foreign discount rate is applied for the reason that, if the banker negotiating the bill requires funds in the centre in which it is payable, he will have to rediscount the bill there at the rate ruling in that centre.

As regards the period for which discount is allowed, *no account will be taken of the time taken by the outward mail* if a sight draft or cheque in the same currency is being given in exchange, since the interest lost during this period is counterbalanced by the exactly similar loss involved in sending forward for collection the draft or cheque handed to the presenter. There is in this respect a distinction between the allowances made on bills drawn in foreign currency and those made on after sight bills drawn in sterling on a foreign country. In the latter case, a deduction is made in discounting for the time taken by the mail *both outward and homeward*, since the proceeds of a sterling bill are remitted to London by cheque drawn to the order of the negotiating banker.

No deduction will, of course, be made for British stamps, since the bill, having been drawn in this country, will be on paper bearing an impressed stamp.

EXAMPLE.

By way of illustration, let us suppose a banker is asked to negotiate a three months' sight bill on New York for \$10,000, and to issue in exchange a sight draft or cheque on New York. If he decides to discount the bill, he will ascertain the ruling discount rate in New York and calculate as follows the amount for which he will issue the sight draft or cheque in favour of the customer:—

Amount of 3 months' bill	..	..	..	\$10,000
Less 3 months' interest at 4 % (New York				
discount rate)	..	..	..	100
Negotiating Commission $\frac{1}{4}$ %	..	..	..	25
Risk, etc., say 1 per mille	..	..	..	10
				— 135
Amount of cheque issued to customer	..	..	..	<u>\$9,865</u>

No stamp duty is deducted, because there are no such duties in the United States.

If the customer wishes to be credited *in sterling*, or to receive a *sterling draft* in exchange, the bank will deduct a further 8 days' interest for the time taken by the outward mail, and arrive at the sterling equivalent by applying its current *buying* rate for T.T.'s on New York.

After discounting, the bill will either be retained by the purchasing banker and forwarded in due course to his New York agent for collection at maturity, or it will be forwarded immediately to New York for re-discounting and credit of the proceeds.

In either case, the bill will be treated by the Foreign Branch as a *purchase of forward dollars*, its amount being shown in a special "Long Bill Account". The purchase of undue currency in this way will be covered usually by a spot sale, as, for example, of a sight draft in the same currency for approximately the same amount, but if the amount is large, it may be covered by a forward sale maturing at approximately the same date. The action taken by the dealer will depend, however, on the value of money in the foreign centre concerned and on the state of his balances in the foreign currency.

Checks to the Rise and Fall of the Market Rate of Exchange.—It has been stated that the rate of exchange between two countries at any particular time is determined by the conditions of demand and

supply in relation to their respective currencies. If the demand for and supply of a currency are approximately equal, the market rate of exchange between the countries will be somewhere near the mint par. Such a state of equality or balance is, however, very rare, and normally there is a divergence between the demand for and the supply of the two currencies concerned in the respective exchange markets. As a result, the market rates of exchange move above or below the mint par conformable to this divergence between demand and supply. If, on a particular date, the demand for sterling remittances in Paris is in excess of the supply immediately available, the tendency is for the rate of exchange on London to move against Paris. In other words, the price of sterling remittances in Paris will tend to rise, and, conversely, the price of French remittances in London will tend to fall.

But not every such movement away from the mint parity will result in an export or import of gold, because the actual movement in the exchange rate itself brings into play certain forces which act as a check to further movement in the same direction. The first of these is to be found in the willingness of bankers and foreign exchange dealers to sell rights to foreign currency *which they do not actually possess* in order to meet the demand. In pre-war days, bankers took steps to remedy a shortage of trade bills on a foreign centre by creating bills specially drawn to meet the demand. Such bills took the form of bankers' drafts drawn on agents in other centres, either against existing credit balances or under arrangements whereby an overdraft in the foreign currency would be granted whenever required.

Nowadays, when a large proportion of trade remittances to other countries are made in the form of bankers' drafts, the intervention of bankers on a rise in the rate of exchange is not as marked as it used to be. Nevertheless, similar principles are in operation. To-day, bankers who experience a strong demand for remittances to any particular centre take steps to replenish their balances in that centre or to make arrangements for overdrafts and credits with their agents in the foreign currency concerned. The banks will in the first instance replenish their balances by the purchase and remittance to their agents of commercial and bank bills, or by the purchase of T.T. or M.T. from the Foreign Exchange Market.

Instead of such *direct* remittances, some of the banks may arrange for the *indirect* transfer of funds on their account. The banks who have to face a heavy demand for any particular foreign currency will satisfy that demand so long as they possibly can and will provide cover for

themselves in the cheapest possible way. Suppose there is a heavy demand in Paris for sterling. The banks in Paris will sell sterling so long as their London balances last, and they will replenish those balances by the purchase of sterling trade and bank bills, maturing treasury bills, coupons, etc. Ultimately they may find that the demand for sterling is so strong that it pays them to purchase marks, lire, or pesetas, and exchange these in Berlin, Milan, or Madrid, respectively, or rights to sterling in London. (See "Arbitrage", Chapter VIII.)

Sympathetic Movements in the Principal Exchanges.—A demand thus arises for sterling not only in Paris, but also in the other continental centres mentioned, with the result that the chief European rates of exchange on London tend to rise together. And just as they tend to rise together in such circumstances, so they fall together when reverse conditions prevail. For, in the face of a continued decline in the demand for sterling in Paris, coupled with no diminution of the quantity of sterling on offer, the rate of exchange Paris on London will tend to fall. The cheapening of sterling relative to francs will mean that people in this country who require francs will endeavour to get them through other centres where sterling is relatively more valuable. They will thus offer sterling for marks, pesetas, etc., and buy francs with those currencies. The offer of sterling against these currencies naturally sends down the rates between London and the respective centres, so that the principal European rates on London tend to move against this country.

This close relationship between the European exchanges has become greatly accentuated by the modern organisation of the exchange markets and the rapidity of telephonic and telegraphic communication over great distances. Indeed, we may rightly regard the great European centres as branches of one great market in the most intimate relationship, particularly in so far as European exchanges with the rest of the world are concerned. The rôle of financier to her Allies assumed by Britain during the War, still further accentuated this interdependence, and the dollar-sterling exchange became the bridge which bore the burdens of the financial transactions between war-worn Europe and the more favourably situated countries.

Central Bank Intervention.—If, in the face of persistent demand for a foreign currency, the efforts of bankers and exchange dealers prove ineffective to provide an adequate supply, the tendency will be for the bankers to undertake the shipment of gold bullion with the object of selling further remittances against the proceeds. But as a rule, before gold actually begins to move, other forces are called into play through

the action of the Central Bank in the centre concerned. Several courses may be taken, either concurrently or consecutively.

As a first step, the Central Bank may itself endeavour to meet the demands for remittances by offering for sale exchange on the foreign centre concerned. The Central Bank is in a position to make such offerings either because it maintains a reserve of foreign exchange to meet exceptional demands or because it has standing arrangements for credits in the foreign centre against which it can sell currency when required.

As a second step, the Central Bank may take action to influence the exchanges in its own favour by raising the rate of interest. The actual effect of this on the foreign exchange rates is a matter of some intricacy, and detailed discussion is postponed to Chapter X, but it may here be stated that if the raising of interest rates is effectual, the foreign exchange rate will tend to move in a favourable direction and the danger of an outflow of gold may for the time being be averted.

The measures referred to above may be regarded as being part of the normal everyday business of the banks and of the Central Bank, but in exceptional circumstances more drastic measures may be taken either by the Central Bank or by the Government to restrict the movement of the rates of exchange and to prevent the outflow of gold. Such action may take the form of active interference with the foreign exchange market with a view to the restriction of speculative dealings in exchange or with a view to fixing the rate at which foreign currencies may be bought and sold. In the latter case, the result may be that the exchange is maintained or "pegged" at a certain fixed rate, and at this rate all purchases and sales of the currency must take place.

CHAPTER VI

THE STRUCTURE AND WORK OF THE FOREIGN BRANCH

As a general rule, the exchange dealer's office forms part of the *Foreign Branch* or *Foreign Department* of the institution concerned, and as the extent of the dealer's transactions in any currency are ultimately dependent on the operations of the other sections of this larger organisation, it is necessary to have some acquaintance with the work of the latter before one can appreciate fully the importance of the dealer and the object of his operations. It is therefore proposed to consider briefly the arrangement and work of the various departments of the Foreign Branch of a large English bank.

It must be clearly understood that the Foreign Branch referred to here is that section of a large bank which is responsible for the conduct of its foreign operations *in London*, and it must not be confused with a foreign branch situated abroad. As a rule, the big English banks have no branches abroad, although they are usually represented in other countries by affiliated but entirely distinct companies, as, for example, Barclays Bank (Overseas), Ltd., which has a head office in London distinct from the London Foreign Branch of Barclays Bank, Ltd.

Unless it works in collaboration with an affiliated institution of this kind, the Foreign Branch conducts its overseas operations through agents or correspondents in other centres, and usually reciprocates by acting for those correspondents as their London agent. The London Foreign Branches of the English banks do not, however, undertake such reciprocal arrangements with banks in the Dominions and Colonies which have their own London offices, since it is customary to pass all *outward* Dominion and Colonial business through the London offices of the banks in those countries.

The London Foreign Branches or Foreign Departments of the banks are largely in the nature of clearing houses for foreign dealings and business of all kinds. Every day they receive orders and remittances in almost endless variety from their branches all over the country

and also from their agents and correspondents abroad, and within the branch specialised sections or departments are in operation to deal with the various articles and orders. The actual arrangements vary considerably in different institutions, but generally speaking the more important sections deal with the following classes of business, each of which is briefly discussed in the succeeding paragraphs :—

- (1) Foreign Bills for Collection and Negotiation.
- (2) Drafts Issued.
- (3) Mail and Cable Transfers.
- (4) Foreign Credits.
- (5) Foreign Cashier.
- (6) Foreign Coupons and Securities.
- (7) Dealers and Exchange Contracts.
- (8) Cables and Correspondence.
- (9) Inward Collections and Inward Credits.
- (10) Accounts.

The business of the Foreign Branch is kept quite separate from the ordinary banking business of the bank, since this business is clearly of a special character. The Foreign Branch *operates as a distinct concern*, regarding all parties with whom it has dealings as customers, whether such parties are bankers abroad, other banks in London, private persons in London and abroad, or offices of its own bank. The only difference made in the case of dealings with other offices of the same bank is that, while such offices deal with the Foreign Branch direct, all *settlements* are effected through the Head Office. Moreover, each department of the Foreign Branch is kept quite separate from the others, and each department treats the others as customers for all book-keeping purposes.

The Accounts Department.—This section of the Foreign Branch may be regarded as the key to its operations, for all transactions of the various sections must of necessity pass through the accounts and records in some form or other. The accounts themselves fall into two main divisions: (a) *Sterling Accounts*; and (b) *Currency Accounts*, usually described as “*Nostro*” Accounts.

STERLING ACCOUNTS.—These include (i) The sterling accounts recording amounts received by the bank for sterling letters of credit, travellers’ cheques, and similar documents issued in favour of people abroad, and also for sterling drafts and mail transfers, the sterling remaining on these accounts until the paying agent in the foreign centre reimburses himself by drawing upon the foreign branch; (ii) The

sterling accounts maintained with the institution by its foreign agents and correspondents, out of which it pays sterling drafts issued abroad and any transfers ordered to be made by its correspondents. There is little difference between the actual form and working of an account of this kind and an ordinary domestic current account, except that the former is provided with a column for the "value" date, to which reference has already been made.

"Vostro" Accounts.—All such sterling accounts maintained on behalf of foreign agents and correspondents are distinguished by the Foreign Branch as "*vostro*" (i.e., "your") accounts, a term which is also applied by the agents to the accounts *in foreign currency* maintained with them by the London Bank. Thus the dollar account of Lloyds Bank in New York would be described by the New York agent in any communications with Lloyds Bank as the latter's *vostro* account, while the sterling account of the New York agent with Lloyds Bank, London, would be referred to by the latter as the former's *vostro* account. In effect, a *vostro* account is identical with any other account kept in the home currency, and interest is charged or allowed thereon, according to the state of the balance, at the prevailing market rates.

"Nostro" Accounts.—The accounts *in foreign currency* kept by a bank with its agents abroad are referred to by the Foreign Branch as *nostro accounts*. Readers with some knowledge of languages will have no difficulty in understanding that the term *Nostro* Account is interpreted to mean "*Our* account with you." Thus Lloyds Bank, London, will have a *nostro* account kept in francs with its agent in Paris, and a dollar *nostro* account with its agent in New York.

A *nostro* account in a foreign centre is operated in exactly the same way as are current accounts with banks in this country, except, of course, that all transactions thereon are in the foreign currency. To the *credit* of the account pass all purchases of the foreign currency (i.e., as actual coin and notes, or as balances held abroad by other dealers) made by the exchange dealer on the London market, and also the proceeds of bills and coupons sent for collection and of securities sent for realisation in the foreign centre concerned. It is also credited with any payments in currency made by the London bank on behalf of the foreign agent. On the other hand, the balance of the *nostro* account is depleted by (i.e., it is *debited* with) any sales of the currency concerned on the London market, by cheques, mail and telegraphic or cable transfers on the foreign centre sold by the London bank, and by payments made by the foreign agent against bills or drafts drawn under clean or documentary letters of credit.

Clearly an account of this kind with a fluctuating balance may be in credit, or it may become overdrawn, and accordingly interest is calculated by the agent on the daily balance in exactly the same way as is done in the case of a current account with an English bank. Furthermore, each account of this kind has a "value" column to indicate exactly when interest will begin to run in respect of each item, as circumstances often arise in which the value date differs from the date of the entry. Frequently, too, a commission on the turnover will be charged by the agent for his trouble in making payments and in collecting the proceeds of bills, coupons and securities, although sometimes the agent's commission is separately charged with each item as in the specimen account below. In the case of currencies subject to frequent fluctuation and a limited forward market it is naturally to the advantage of the exchange dealer to keep his balances on the *nostro* accounts to a minimum, but in those cases where rates are reasonably steady and commitments are easily covered by forward deals, he will be influenced in his decision to maintain a large credit balance or an appreciable overdraft in any centre by the relation between rates of interest in that centre and rates of interest in this country.

As a general rule, the balances carried by important banks with their agents in the principal centres are necessarily considerable, for they must be ready at all times to meet the demand of their customers for remittances to those centres. Such holdings do, in fact, constitute part of the liquid assets of the banks concerned (appearing in their balance-sheets at the calculated sterling equivalents), and it is therefore understandable that they endeavour to utilise such balances to the full extent by turning them over as rapidly and remuneratively as possible, while at the same time they seek to obtain as high an interest rate as possible on the amount which may be outstanding.

On page 124 is a specimen *nostro* account of a London bank as it would appear in the books of its agent in New York.

The "Nostro" Ledgers of the Foreign Branch.—It is necessary for the Foreign Branch of a bank, whether in London or abroad, to maintain exact counterparts in its own ledgers of the foreign *nostro* accounts, for it must have first-hand information of the state of its balances in other centres. Such counterpart accounts are, in fact, double accounts, for all entries therein are made not only in the foreign currency concerned, but also in the home currency, the equivalents being worked out at the rates at which the transactions

are effected while balances are converted at the rate of the day. Thus a London bank will record its own accounts with foreign agents in its *nostro* ledgers, entries in which are made from day to day in accordance with mail, telegraphic and cable advices from the foreign agents, and in accordance with instructions to pay or to receive currency sent to the foreign agents by the various sections of the Foreign Branch.

The *nostro* account for each correspondent is usually in two sections, described respectively as "Nostro No. 1" and "Nostro No. 2." In the first are recorded the funds of the *Foreign Branch itself* with its agents abroad, while in the second are recorded particulars of the foreign currency held abroad *on behalf of the Bank's customers*.

But while the entries in the *nostro* accounts at home and abroad will usually be identical as to rate of exchange and amount, they will, of course, fall on the reverse sides of the ledger, in just the same way as a customer's passbook is the counterpart of his account with a bank, although the entries are on opposite sides. In other words, a *debit* in the *nostro* account maintained by the Foreign Branch of a London bank will appear as a *credit* in the *nostro* account of that bank in the foreign centre. For example, if a London dealer buys 100,000 French francs, he will pass the amount to the debit of the *nostro* account with the Paris agent in the London *nostro* ledgers, and in due course the Paris agent will *credit* the *nostro* account of the London institution to the same extent. If the London Foreign Branch remits bills to its foreign agent for collection and credit, the relative *nostro* account in the Foreign Branch ledgers is *debited* with the proceeds on advice (since the amount is *owed* by the agent), whereas the agent, of course, gives the London bank *credit* in its Foreign Currency Account on collection.

Similarly, if the London bank sells its customer a draft in the foreign currency drawn on its foreign agent, the relative *nostro* ledger account is *credited*, whereas the agent abroad *debts* the London bank with the amount paid out against the draft. In general, items *which are received* by the foreign correspondent on behalf of the London bank are *debited* to the *nostro* account in the London ledgers, whereas items *which are paid out* by the foreign agent are *credited*. Corresponding but reverse entries will be made by the foreign agent in the London bank's Foreign Currency Account, designated a *vostro* (i.e., "your") account by the agent.

In addition to this, however, other important differences arise

Specimen Ruling of a "Nostro" Account¹

THE LONDON BANK, LTD.,

in account with

THE FIRST AMERICAN BANK, NEW YORK

Date	Particulars	Value Date *	Dr.		Cr.	Balances		Days	Interest and Commission Columns (as required)
			\$	c		Dr	Cr		
19 . 1	Balance b.d. †	19 .	\$	c	\$	c		2	
June 3	Natl Bk A/C Lloyds	June 3			105,000		\$ 105,000		
" 3	T T., Morgan & Co	" 3			50,000		155,000		
" 10	B/C, Armour & Co	" 10	75,000		200,000		80,000	7	
" 13	M T., United Bank	" 13	110,000				280,000	3	
" 15	Payment under L/C 1171	" 15	65,000				170,000	2	
" 17	Coupons U.A.R. collected	" 17			1,720		105,000	2	
	Commission thereon		54				106,666	1	
" 18	Payment by Wilson Bros	" 18			8,000		114,666	2	
" 20	\$10,000 U R Bonds								
	realised less expenses	" 20			9,750		124,416		
	Comm thereon		245				124,171		

* As a rule, dates are not shown in this column unless they differ from the date of entry.
 † The balance does not necessarily agree with the balance shown by the corresponding account in the London *nostro* ledgers.
 (See pages 126-7)

¹ This account appears in the Looks of the First American Bank, New York.

between the entries in the two accounts by reason of the time which must elapse between the dates of despatch and dates of receipt of such items as mail transfers, advices of collections of bills and coupons, and advices of payment of bills. Consequently, entries may be made in the *nostro* account in one centre days and even weeks before the corresponding entry is made in the account on the other side. Thus a London banker may issue a dollar mail transfer on his New York agent to-day and will at once credit the *nostro* account with the amount, but the actual payment may not be made until one week hence or longer. Again, the London banker may forward to his New York agent a parcel of American bills for collection. On receipt of the proceeds the agent will at once credit the London banker's *nostro* account with the dollars, but the corresponding entry in the *nostro* ledgers of the London Foreign Branch will not be made until advice of the collection has been received, usually by post several days later.

The ruling on pages 126-7 is typical of that which is used for *nostro* accounts in London ledgers, except that for the sake of clearness the columns for interest and charges have been omitted. The entries included in this specimen are those corresponding to the entries in the New York *nostro* account already given.

Reconciling Home and Foreign Entries.—In view of the considerations mentioned above, it is not surprising that a high degree of importance is attached to the prompt despatch and receipt of advices of payment and credits affecting *nostro* accounts, particularly as the actual entries have sometimes to be adjusted by allowances for expenses incurred. In fact, no entry in a *nostro* account is regarded as final until a duly signed debit or credit advice has been received and carefully checked. Moreover, in those Foreign Branches where the currency funds of the Branch itself and of its customers are separately recorded in "Nostros No. 1" and "Nostros No. 2," it is necessary to combine these two groups of accounts in order to reconcile the balances thereon with the Foreign Currency Accounts abroad.

In addition to this, the balance on the combined Nostro Accounts corresponds approximately to the exchange position in the currency concerned as shown by the dealer's position sheets, and these are kept so as to facilitate agreement with the Ledger accounts. But the Nostro No. 2 Account is affected only when purchases or sales are made *on account of customers*. Thus, if a customer wishes to have a draft issued on his dollar account in New York, his dollar account

Specimen Ruling of an

THE FIRST AMERICAN BANK, LTD., in

Date	Particulars.	Value Date.	Currency.			
			Dr.		Cr.	
19..		19..	\$	c.	\$	c.
June 1	Balance b.d.	June 3	121,500			
" 1	T.T., Lloyds	" 3	50,000			
" 1	T.T., Morgan & Co. ..	" 13			75,000	
" 8	M.T., United Bank ..	" 10			110,000	
" 18	B/C., Armour & Co. ..	" 18	200,000			
" 19	Payment by Wilson Bros.	" 15	8,000			
" 20	Payment under L/C 1171.	" 27			65,000	
" 22	M.T. National Bank ..	" 17			24,300	
	Proceeds U.A.R. Coupons	" 17	1,720			
	Comm. thereon	" 17			54	
" 25	Proceeds realisation U.R.	" 20	9,750			
	Bonds, less expenses ..	" 20				
	Comm. thereon	" 20			245	

is debited and Nostro No. 2 Account credited. On presentation of the draft in New York the Foreign Branch's Dollar Account is debited in the books of the New York correspondent, thus reconciling that amount and the combined *nostro* accounts.

Arrangements therefore exist for the periodical agreement of the entries in the accounts from time to time. In practice, this is accomplished by the despatch from agent to principal of *statements of account*, which are sent quarterly, monthly, weekly or even daily in the case of accounts of frequent operation and first-rate importance. Such statements enable a reconciliation to be effected between the home and foreign *nostro* accounts, for each statement gives full details of all entries since the date of the last return. A specimen of such a statement would be very similar in appearance to the specimen of the *nostro* account on page 124. In fact, if the posting is machine done, the statement will be an actual carbon copy of the ledger account, while in other cases it may be a photographic reproduction of the ledger pages. The entries are carefully ticked with the account in the *nostro* ledger, and in due course a Reconciliation Account is drawn up very much on the same lines as the Reconciliation Statement or Account periodically drafted in all business houses in order to agree the balance shown by each firm's bank passbook with that of the bank account in its own ledgers.

It remains to be added that any queries as to the nature or amount of any of the entries should be taken up immediately with

Account in a Nostro Ledger

account with THE LONDON BANK, LTD.

Balance Currency			Rate	Value Date	Sterling						Balance Sterling.		
					Dr.			Cr.					
	\$	c		19..	£	s	d	£	s	d	£	s	d
Dr.	121,500			June 1	25,000	0	0				25,000	0	0
Dr.	171,500		4·87	„ 3	10,266	18	10				35,266	18	10
Dr.	96,500		4·87	„ 3				15,400	8	3	19,866	10	7
Cr.	13,500		4·85	„ 13				22,680	8	3	2,713	17	8
Dr.	186,500		4·85	„ 10	41,237	2	3				38,523	4	7
Dr.	194,500		4·86	„ 18	1,646	1	10				40,169	6	5
Dr.	129,500		4·86	„ 15				13,374	9	8	26,794	16	9
Dr.	105,200		4·85	„ 27				5,010	6	2	21,784	10	7
Dr.	106,920		4·85	„ 17	354	12	9				22,139	3	4
Dr.	106,866		4·85	„ 17				11	2	8	22,128	0	8
Dr.	116,616		4·86	„ 20	2,006	3	5				24,134	4	1
Dr.	116,371		4·86	„ 20				50	8	3	24,083	15	10

the correspondent so as to minimise any loss or difficulty which may result from delay.

Forward Purchases and Sales of Foreign Currency.—These are not recorded in the Nostro Accounts, but are entered to Impersonal Accounts much in the same way as bills for collection. If, however, forward transactions are covered by spot purchases or sales, the latter will, of course, appear in the relative Nostro Accounts. Thus, if the dealer sells \$100,000 forward, 3 months, and buys spot to cover, the New York Nostro No. 1 Account will be debited in respect of the spot purchase, but the credit to that account will not be passed until advice is received that the forward dollars have been delivered to the forward buyer by the London bank's agent in New York at the expiration of the 3 months.

It sometimes happens that the debits to Nostro No. 1 Account, in respect of currency bought spot to cover forward sales, exceed the credits to the same account, and that the account therefore shows a *debit* balance against the foreign agent. This balance, of course, represents the total amount of funds held by the agent to the *credit* of the *London* bank, and interest on these funds will be earned at a rate based on the market rates current in the foreign centre.

Currency Accounts of Customers.—Apart from the currency and sterling accounts of the bank and its agents, are the currency accounts which are opened by the Foreign Branch for its English customers. As a general rule, the currency balances so maintained represent

provision made by the customers for future payments which they have to make abroad, as, for example, for imports of goods or for purchases of securities, but in some cases they are held purely for speculative purposes. In any case, the funds are actually held abroad in the foreign *nostro* account in the name of the bank concerned, through which all operations on the account must be passed. But although such currency balances held on behalf of customers are merged in the bank's own balance with its foreign agent, the money belongs to the customer and not to the bank, and it is therefore necessary to make some distinction in the accounts of the Foreign Branch.

Accordingly, the actual amount of the foreign currency purchased is first of all debited to the London *nostro* account while the sterling equivalent is credited to a suspense account, the balance of which is adjusted from time to time according to the exchange, and, with other accounts of similar nature, figures in the bank's balance-sheet as *Foreign Money held abroad on Account of Customers*. Thereafter the currency amount is transferred from the *nostro* account to the debit of a special "Sundry Customers' Account" in the currency ledgers (e.g., New York Customers' Account), while the same amount is credited to a *nostro* No. 2 Account in the name of the particular customer with the Foreign Branch, against payment or debit of the sterling equivalent. Another method is to credit the amount of the foreign currency purchased and the sterling equivalent to a special summary account for that particular currency, the sterling amount being debited to the purchasing customer's ordinary current account. The amount of currency is then credited to a special account in the name of the customer, the total of the balances on these special accounts agreeing with the balance of the summary account recording that particular currency. Under this system no entries appear in the *nostro* account until the currency is utilised abroad, when, if, for example, a draft is issued, the summary account and the special account in the name of the customer are debited with the currency amount of the draft while the *nostro* account is credited. At the same time a nominal sterling equivalent appears as a debit in the summary account and as a credit in the *nostro* account relative to the particular currency.

The foreign currency balances or accounts of the various customers are known in the foreign branch as *loro* (i.e., their) balances or accounts, to distinguish them from the *nostro* (i.e., our) balances, comprising the Foreign Bank's own currency balances with its agents abroad.

The currency balance is, of course, entirely at the risk and disposal of the customer, and the bank accepts no responsibility in the event of its being unable to obtain delivery or credit for the currency when required. In order to avoid any misunderstanding on this point, the customer is usually asked to sign an agreement in the following form on opening an account of this kind :

CUSTOMER'S REQUEST TO OPEN A FOREIGN CURRENCY ACCOUNT.

TO THE NORTHLAND BANK, LIMITED.

Date.....

DEAR SIRS,

I request you to open in your books in my name an account in French Currency, and in consideration of your so doing, I hereby agree that these funds shall be held abroad with your Correspondents in your name, and that such funds, together with any amounts which may subsequently be placed to the credit of this account are at my entire risk in every respect, and that it is clearly understood that you accept no responsibility whatsoever in respect of such funds.

Yours faithfully,

James Brown.

NOTE.—This form is particularly valuable when a customer desires to hold the currency of a foreign country wherein financial and monetary conditions are unstable. The form renders the customer alone responsible for any loss which may arise, as for example, if the bank's foreign agent goes bankrupt. For purposes of the bank's audit the customer is from time to time sent a statement of his Foreign Currency Account and is required to sign an acknowledgment of the correctness thereof and of the fact that the funds are entirely at his own risk and responsibility.

The object of such a safeguard from the bank's point of view is self-evident, particularly in the case of a foreign currency which is subject to considerable fluctuation.

If the Foreign Branch is allowed interest by its agents abroad on its foreign currency balances in their hands, it will in certain cases pass on part of that interest to the customers who have accounts in the currencies concerned. This will depend, however, on the size of the customers' accounts and on their remunerativeness to the banker. Any interest allowed will, of course, be credited in the foreign currency concerned to the customer's *loro* account.

The advantages of the system will be apparent on a little consideration. Suppose that an importer buying goods abroad is required to make payment for them in foreign currency. As soon as he accepts the quotation in the foreign currency, he fixes at once the sterling equivalent of the goods ordered, by purchasing immediately the requisite amount of the currency concerned, and has it placed to the credit of a Foreign Currency Account in his name. When he wishes to make a payment, he issues a cheque or bill against the balance

outstanding, or, as is more usual, he instructs the bank to issue a draft to his order, or otherwise to transfer the necessary sums to the foreign exporter as, for example, by mail transfer or T.T.

If the importer has any payments to *receive* in the foreign currency concerned (as, for example, proceeds of bills drawn by him, or of coupons sent for collection), he may have the amounts credited to the foreign currency account for disposal as he may subsequently decide.

In the same way, an exporter may have all sums in foreign currency due to him credited to a foreign currency account in his name, with the object either of utilising the balances for any payments which he may have to make in that currency, or of selling the balance when he thinks it most opportune to do so. If and when he decides to sell, the bank will usually arrange with him to convert all or a portion of the foreign currency balance into sterling at an agreed rate of exchange. Alternatively it may be arranged, in order to avoid difficulty, for all transactions on a currency account within an agreed period to be passed at a *fixed* rate, and consequently the necessity for adjustment is avoided.

Clearly, an arrangement of this kind is of considerable advantage to an exporter now that goods sent abroad are almost always paid for in the currency of the importing country, and now that bills drawn in foreign currency are almost invariably paid in the currency in which they are drawn. The proceeds of such bills can be placed direct to the exporter's Foreign Currency Account, and there is no trouble or delay over the question of exchange into the exporter's home currency unless, of course, he wishes to have the exchange effected immediately.

It sometimes happens that an exporter accumulates considerable sums on a foreign currency account, yet is at the same time short of liquid funds in his own currency, e.g., sterling. In such circumstances, it is not uncommon for the bank to grant him a sterling loan or overdraft against the security of his foreign currency balance, subject, of course, to the maintenance of an ample margin of foreign currency to provide for any adverse change in its value.

Foreign Bills.—The next section of the Foreign Branch which we have to consider is the Foreign Bills Department. This deals with bills drawn in sterling or in currency which have been received by the bank either for collection on behalf of customers or agents, or for negotiation, i.e., having been purchased by the bank with recourse in the event of non-payment. Particulars of all bills received for collection are entered by the Department in suitable registers, and the bills are then despatched to the agent abroad with a request to obtain the proceeds from the drawee. In the case of sterling bills

for collection the agent is usually instructed to remit a sterling draft on London in payment, but as a rule the proceeds of currency bills are credited by the agent to the Currency Account of the remitting bank. On receipt of the sterling in London, or on receipt of advice of the credits in the case of currency items, the Foreign Department credits the customer with the proceeds in the case of sterling bills, and in the case of currency amounts, either (a) buys the currency at the rate of the day (or at an agreed rate if a forward contract has been arranged), and credits the sterling equivalent to the customer, or (b) places the currency amount to the credit of the customer's currency account if he happens to possess one.

So far as the account kept by the agent abroad is concerned, there is no difference in procedure between a bill for collection and a bill negotiated. Such bills are, however, differently dealt with in the Foreign Department, for while a bill for collection remains the property of a customer, a bill negotiated is actually purchased by the bank at the time it is received. In the case of sterling bills the face amount is debited to a sterling Bills Negotiated Account and the discount thereon is credited to a Discount Account for ultimate transfer to profits. On the other hand, currency bills payable at sight are purchased at the cheque rate and are debited to the foreign agent's Currency Account, while long-dated bills are bought at the long or *tel quel* rate, or sometimes again at the sight rate, discount in such cases being deducted in sterling. The amounts of all such long bills are debited to an Undue Bills Account until such time as they fall due, when the amount is transferred to the foreign agent's Currency Account, i.e., to the negotiating bank's *nostro* account in the centre concerned.

Drafts Issued—Mail and Cable Transfers.—So far as their ultimate effect is concerned, the draft and the mail or cable transfer are very similar—all three enable funds to be transmitted from one centre for account of people in another—but, for reasons explained in the last chapter, there are important differences both in form and in procedure.

In order to avoid risk of loss or delay it is clearly of first importance that due confirmation of the issue of drafts and transfers should be sent by the selling bank to its foreign agent. Hence, in the case of mail transfers, duplicates are usually forwarded by different mails, while in the case of drafts on distant countries, it is usual to issue the drafts in duplicate and also to forward duplicate advices thereof by separate mails. Cables and telegraphic transfers

are likewise confirmed by duplicate advices sent by different mails, the advices being signed in all cases by duly authorised officials.

For similar reasons, it is usual to advise foreign agents of all payments which are to be made to them, so that they can immediately communicate with the bank concerned if the expected funds are not received, and also in order that they can arrange their cash holdings with due regard to the expected transfers. As a rule, advices of this kind are forwarded by cable or telegraph if the expected payment is being made by either of these methods.

In the case of currency remittances, the agent, on receiving instructions to pay by mail or cable, immediately debits the issuing bank's currency account, but with regard to currency *drafts* the procedure varies. In some cases, the currency account of the issuing bank is debited by the agent immediately on receipt of advice of issue of the draft, but in other cases the debit is not passed until the draft is actually cashed by the holder. In due course advice of the payment against the currency draft, mail transfer, or T T will be forwarded by post to the issuing bank by the foreign agent, and on receipt of such advice the Foreign Branch Accounts Department is in a position to check the entries already made to the foreign agent's credit in the *nostro* ledger.

So far as sterling drafts or transfers are concerned, the usual procedure is either to retain the necessary sterling amount on a special account in the Foreign Department until such time as the agent abroad reimburses himself by drawing on the issuing bank, or the amount may be credited at once to the *vostro* account of the foreign agent, or if no such account exists, the sterling amount may be paid over to the London agent of the foreign bank for its credit.

Foreign Credits.—As is indicated by its name, this section of the Foreign Branch deals primarily with the opening of credits abroad, either in currency or in sterling, and much of its work consists in the examination and confirmation of the relative documents and vouchers against which payments have been made by the agents in the foreign countries. In addition to the more usual forms of credits, this department is also responsible for the issue of world-wide Letters of Credit, Travellers' Cheques, and Circular Notes. It will be explained in Chapter XV that in the last two cases the cheques and notes are issued against payment of the relative amounts by the customer, but with ordinary commercial credits it is usual for the issuing bank to require satisfactory *cover*, and this generally takes the form of a sterling or currency deposit, the deposit being retained

in the department on a special account earmarked against the particular credit.

On the issue of these credits by the bank no entry is passed to the account of the foreign agent in the *nostro* ledger until receipt of due advice of a payment under the credit, while so far as the agent is concerned he reimburses himself as a rule by debiting the issuing bank's currency account in the case of a currency credit, and, in the case of a sterling credit, by drawing in sterling on the issuing bank and negotiating the draft abroad at the prevailing rate.

It may be added that the work of this department has increased considerably in recent years, for the collapse of credit and the world failure of confidence following the War induced home traders to rely upon bank credits to a constantly increasing extent as the most secure means of financing their operations with other countries.

Foreign Cashier.—The foreign cashier's department is concerned with the purchase and sale of foreign notes and coins of all kinds. As a rule, the rate of exchange applicable to these articles differs slightly from the rates quoted for T T, for they are largely affected by the relation between the demand for and the supply of the notes concerned in London, and also by the facility or difficulty with which the notes can be obtained from the respective financial centres abroad. The export of these articles is at times prohibited or curtailed by the foreign Governments concerned, while their transfer always involves expense in the way of insurance and loss of interest. Furthermore, the rates are to some extent dependent on the denominations of the notes available; on occasion notes of small denomination are at a premium in comparison with large notes, whilst at other times the reverse may be the case. For example, on a certain date the quoted Paris T.T. rates were :—

Buying 95·70

Selling 95·50

and at the same time the relative rates for notes were quoted as :—

Buying 96

Selling—small notes 95

large notes 95·25

It may be added that there exists in the City a number of foreign note brokers, who specialise in dealings in foreign notes of all kinds, and must not be confused with the foreign exchange brokers already discussed. The note brokers keep their own stocks of foreign notes and regularly visit the various foreign departments and banks in

order to ascertain and satisfy their requirements, selling to them such currencies and denominations as they need and buying from them any surplus notes which they may have for disposal. In fact, the note brokers, who are *principals* and not agents, act as intermediaries between buyers and sellers of notes and thus perform a function somewhat similar to that of running brokers in connection with bills of exchange.

Foreign Coupons and Securities.—This section deals with currency coupons, bonds, share certificates, and other documents of a similar nature which have to be sent abroad for payment or sale, or for the renewal or provision of new coupon sheets as the case may be. It deals also with all stock orders for the purchase or sale of securities which are dealt with on the foreign bourses.

The routine work is in some respects very similar to that in connection with currency bills, for the coupons and bonds are either purchased by the bank with recourse, or are received for collection on behalf of customers, while, as in the case of currency bills, the agent abroad passes all disbursements or receipts of currency through the bank's currency account under advice.

One important difference arises, however, between the procedure relating to bills and that relating to coupons and dividend warrants, and this concerns the deduction of British Income Tax. Where the coupons or warrants are purchased by the bank with recourse the matter is a simple one, for tax at the appropriate rate is in such cases deducted from the sterling equivalent due to the customer. On the other hand, where the proceeds of the coupons are retained by the customer in currency, a proportion equivalent to the rate of tax—for example, at 4s. in the £ the proportion would be 20 %—is deducted from the currency total and is converted at the current rate of the day into sterling, the relative amount being paid over in due course to the Inland Revenue Authorities.

Cables and Correspondence Department.—This section of the Foreign Branch is responsible for most of incoming and outgoing correspondence relative to the Branch, and for the work of coding and decoding cables and telegrams embodying instructions to and from the bank's agents in the foreign centres.

Inward Collections and Inward Credits.—The work of this department is to deal with bills, cheques, coupons, etc., payable in this country and forwarded to the Foreign Branch by its agents abroad for collection and credit of the proceeds, and also to handle all credits opened by its foreign agents for operation in this country. In some

cases the Collections and Credits will be handled by separate departments of the Foreign Branch. Collections may be drawn either in *sterling* or in *foreign currency*.

Sterling collections will yield no exchange profit, so that unless they are being handled *franco*, i.e., free, a commission will be charged against the foreign agent. Currency collections are marked with the rate at which the collecting bank will sell the currency to the drawee, but the latter may, of course, refuse to accept the rate if he can obtain the necessary currency at a better rate elsewhere, or if he has already the requisite amount available.

It is clearly of the first importance that this Department should maintain the most complete and accurate details of the articles and credits which pass through its hands.

Dealers and Exchange Contracts.—Finally, we come to the Dealer's Office, the operations of which are ultimately dependent on the extent of the business transacted in all the other departments of the Foreign Branch. Upon the dealer devolves the task of ensuring that sufficient currency is available on the foreign *nostro* accounts to meet any commitments entered into by any of the other departments, and at the same time he is expected to utilise to the full extent balances transferred to these accounts as a result of the operations of the other sections. It is therefore of first importance that the dealer should be advised by the Accounts Department at the beginning of each day of the exact state of the bank's balances in the hands of its foreign agents, and also that he should receive from the other foreign departments immediate and accurate returns of all currency transactions for which they are responsible.

Omission to give the dealer prompt advice of all such operations may result in endless trouble and possibly in serious loss. For example, the omission of the Foreign Bills Department to make a return of a heavy payment to the bank's French franc account (as, for example, by the credit of proceeds of bills for collection) may result in his having *overbought* francs to meet commitments entered into by him in that particular currency. On the other hand, the omission of the Foreign Credits Department to advise him of an appreciable debit to the bank's New York *nostro* account may cause the dealer to become *oversold* in dollars, i.e., he may have disposed of his available dollar balance on the market and be compelled to cover the credit transaction at a loss.

In practice, therefore, it is a general principle that no department shall pass an entry in a foreign currency unless the relative slip is

initialled by one of the dealers, and as a further safeguard it is arranged that no operation in excess of a fixed limit, say \$500, shall be carried out unless a rate is first of all obtained from the Exchange Department.

In some Foreign Branches the *Exchange Contracts* section of the Dealing Department is responsible for the work which is performed in other banks by the Foreign *Instructions Department*. To this section are passed particulars of all exchange transactions completed by the dealers, and it is the business of the Department to get into touch with the other parties concerned, and to confirm, or arrange for confirmation, of the deals by telephone, telegram or letter. In addition, this Department is responsible for issuing any necessary instructions for the preparation of cables, drafts or mail transfers, by the special sections which deal with those items.

In effect, the function of the Contracts or Instructions Department is to commit to paper the precise details of all the transactions effected by the dealer, chiefly by word of mouth. From the vouchers so prepared all entries in the books of the Foreign Branch are ultimately completed, hence it follows that extreme care has to be exercised by the staff concerned to ensure that all particulars given or received are entirely accurate and, more especially, when messages have to be taken or transmitted by telephone or telegraph.

CHAPTER VII

FOREIGN EXCHANGE LISTS AND QUOTATIONS

CURRENT foreign exchange quotations are now of such importance to the trading and business community, as well as of such interest to the "man in the street", that daily lists of the principal rates are given in all the great national newspapers. To the uninitiated, the quotations and the accompanying letter-press doubtless appear as a maze of mystery and intricacy, but to the student of Foreign Exchange they should, of course, be as an open book. For this reason several of these lists or "tables" are considered in some detail in the paragraphs which follow.

LONDON COURSE OF EXCHANGE.

The Times, November 2, 1920.

On 'Change rates on France, Italy, Germany, Denmark, Finland, Athens, Buenos Aires, and Rio moved in favour of this country. Dutch, Swiss, Spanish, Belgian, Swedish, Norwegian, and New York currencies improved in value. The following rates were quoted:—

Amsterdam	Cable	11 28	11 32	Florins and cents to £
Belgium	Cheque	51 60	51 70	Francs and centimes to £
Paris ..	Cable	54 60	54 90	" "
Paris .	Three months	55 35	55 65	" "
Switzerland	Cable	21 95	22 05	" "
Switzerland	Three months	22 45	22 55	" "
Genoa .	Cable	93 50	94 50	Lire and centesimi per £
Germany ,	--	273	278	Marks per £
Spain	Cable	24 83	24 93	Pesetas per £
Spain .	Three months	46½	47	Pence per five pesetas
New York	Cable	3 44½	3 45½	Dollars and cents per £
New York	Demand	3 46	3 48	" "
Lisbon and				
Oporto .	Cable	8½	9½	Pence per escudo
Copenhagen .	Cable	25 38	25 48	Kroner and ore per £
Christiana .	Cable	25 60	25 70	" "
Stockholm .	Cable	17 76	17 86	" "
Helsingfors .	Cable	150	160	Markkaa per £
Buenos Aires .	Cable	54½	55½	Pence to dol. or peso
Rio ..	Cable	11½	12½	Pence to milreis
Athens ..	Cable	36 50	37 50	Drachmae to £

"The Times" Foreign Exchange Article and Quotations.

November 2, 1920.

FOREIGN EXCHANGES.

The New York exchange rose 1 c. to \$3.45½. Francs depreciated in value, Paris closing at 54 f. 72½ c. and Brussels at 51 f. 72½ c. The lira also weakened to 94 lr. 12½ c., and rates on Switzerland (22 f. 04½ c.), Holland (11 fl. 30½ c.), and Spain (24 p. 90½) also moved in our favour. Marks were again offered, the rate closing at 274½. Polish marks and Austrian kronen also fell further, closing at 1,125 to the £ in each case. The following rates were current yesterday:—

Place.	Method of Quoting	Par of Exchange.	November 2.	November 1.
New York ..	Dollars to £	4.86½	3.44½-3.45½	3.43½-3.45
Montreal ..	Dollars to £	4.86½	3.80-3.82	3.80-3.82
Paris ..	Francs to £	25.22½	54.25-54.80	54.30-54.55
Brussels ..	Francs to £	25.22½	51.35-51.80	51.35-51.55
Italy ..	Lire to £	25.22½	93.60-94.25	93.00-94.00
Berne ..	Francs to £	25.22½	21.95-22.06	21.90-22.00
Athens ..	Drach. to £	25.22½	35.75-37.00	36.00-37.00
Helsingfors ..	Marks to £	25.22½	155-160	152-160
Madrid ..	Pesetas to £	25.22½	24.85-25.00	24.85-24.95
Lisbon ..	Pence to escu.	53½d	9-10	9-9½
Amsterdam ..	Florins to £	12.10	11.28-11.32	11.29-11.32
Berlin ..	Marks to £	20.43	270-275	264-270
Vienna ..	Kronen to £	24.02	1,100-1,150	1,050-1,150
Prague ..	Kronen to £	24.02	300-325	295-305
Warsaw ..	Marks to £	20.43	1,100-1,150	1,050-1,150
Bukarest ..	Lei to £	25.22½	215-217	214-216
Christiana ..	Kroner to £	18.159	25.50-25.70	25.30-25.60
Stockholm ..	Kronor to £	18.159	17.75-17.86	17.69-17.79
Copenhagen ..	Kroner to £	18.159	25.25-25.50	25.20-25.40
Alexandria ..	Piastres to £	97½	97 ⅞	97 ⅞
Bombay ..	Ster. to Rup.	24d	1/7½-1/7⅞	1/7⅞-1/7⅞
Calcutta ..	Ster. to Rup.	24d	1/7⅞-1/7⅞	1/7⅞-1/7⅞
Madras ..	Ster. to Rup.	24d.	1/7⅞-1/7⅞	1/7⅞-1/7⅞
Hong Kong ..	Ster. to Dols.	—	3/10½-11½	3/10½-11½
Yokohama ..	Ster. to Yen	24.43	2/11½-11½	2/11½-11½
Shanghai ..	Ster. to Tael	—	5/2-5/3½	5/2-5/3½
Singapore ..	Ster. to Dols.	—	2/3½-2/4	2/3½-2/4
Manila ..	Ster. to Dols.	24.066d.	2/7½	2/7½
Rio de Jan. ..	Pence to Mil.	16d.	Holiday	12 ⅞
B. Aires, T.T.	Pence to Dols.	47.58	55-55½	55-55½
Valparaiso, 90 days ..	Pence to Peso	18d.	—	10½
Montevideo T.T.	Pence to Dols.	51d.	—	56-57
Mexico ..	Pence to Dols.	—	33d.-35d.	33d.-35d.

This table is retained, although it is now several years old, because of the comparison which it offers with the now obsolete Course of Exchange Table on page 137 and because of the indication it affords of the depreciation of European and other currencies as a result of the Great War.

"The Times" Foreign Exchange Article and List of Quotations.

January 10, 1929.

FOREIGN EXCHANGES.

The New York exchange displayed strength during the earlier part of the day, the rate rising to \$4.85 $\frac{1}{2}$. Subsequently, however, much of the advance was lost, dollars being finally bid for on London account, and the closing quotation was \$4.85 $\frac{1}{2}$, a rise of $\frac{1}{2}$ c. on balance. Forward dollars were not quite so much offered, particularly in the case of the longer dates. A sharp rise, to \$4.86, occurred in the Montreal rate. The German exchange at 20 m. 40 was slightly easier, but some of the other Continental rates continued to move in favour of sterling, the Swiss exchange further advancing to 25 f. 20 $\frac{1}{2}$, the Dutch to 12 fl. 08 $\frac{1}{2}$, the French to 124 f. 07 $\frac{1}{2}$, and the Swedish to 18 kr. 14. Spanish pesetas were dearer, the Madrid rate closing 2 c. lower at 29 p. 71 $\frac{1}{2}$, and the Italian rate moved in favour of the lira. Turkish currency showed depreciation. Weakness was again apparent in the Japanese exchange, the Kobe rate closing 1 $\frac{1}{2}$ d. lower at ls. 10 $\frac{1}{2}$ d.

The table herewith gives the range of telegraphic exchange quotations within which business was reported yesterday (Table on page 140).

The first of these tables is the now obsolete *London Course of Exchange*, which was issued at the close of the Foreign Exchange Market held prior to January, 1921, on Tuesdays and Thursdays at the London Royal Exchange. The list gave the rates of exchange quoted by the dealers in this market for bills and other remittances on the most important foreign centres. Copies thereof were published in the principal morning newspapers on the following Wednesdays and Thursdays

"The Times" Daily List of Exchange Rates.—The second and third lists are taken from *The Times*, and are illustrative of the tables which appear in the principal newspapers every morning. Nowadays, the list published by *The Times* gives the range of quotations, or the extreme limits within which business was transacted, *IN London* for remittances to foreign centres during the day prior to publication, the rates being handed, at the close of business each day, to a representative of *The Times* who calls on several of the London banks between 4.0 and 5.0 p.m.

For many years before the War, the Foreign Exchange Table which appeared in *The Times* and other newspapers gave the rates of exchange *quoted by foreign centres ON London*, as cabled from the foreign bourses to the London exchange dealers on the previous day. The change, involving the publication of London rates on other centres in place of the rates of other centres on London, was the result of the operation of two important factors: first, the vast increase in the volume of foreign exchange operations conducted in and from

London, combined with the formation of a large but remarkably efficient foreign exchange market; and, secondly, the widespread use of the cable

Place.	Method of Quoting.	Par of Exchange.	January 10.	January 9.
New York ..	Dollars to £	4·86 $\frac{2}{3}$	4·85 $\frac{1}{16}$ —85 $\frac{1}{16}$	4·84 $\frac{1}{16}$ —5 $\frac{3}{32}$
Montreal ..	Dollars to £	4 86 $\frac{2}{3}$	4·85 $\frac{1}{16}$ —86 $\frac{2}{3}$	4·85 $\frac{1}{16}$ —4·86
Paris ..	Francs to £	124·21	124—124·12 $\frac{1}{2}$	123 $\frac{1}{16}$ —24·07
Brussels ..	Belga to £	35·00	34·89 $\frac{1}{2}$ —90 $\frac{1}{2}$	34·89 $\frac{1}{2}$ —90 $\frac{1}{2}$
Milan ..	Lire to £	92·46	92·68—92·73	92·64—92·70
Berne ..	Francs to £	25·22 $\frac{1}{2}$	25·20—25·21	25·18 $\frac{1}{2}$ —19 $\frac{1}{2}$
Athens ..	Drachmæ to £	375	374 $\frac{1}{2}$ —375 $\frac{1}{2}$	374 $\frac{1}{2}$ —375 $\frac{1}{2}$
Helsingfors	Marks to £	193·23	192 $\frac{5}{8}$ —192 $\frac{7}{8}$	192 $\frac{3}{8}$ —193
Madrid	Pesetas to £	25·22 $\frac{1}{2}$	29·70—29·73	29·72—29·74
Lisbon ..	Escudos to £	—	109—110	108 $\frac{3}{4}$ —109 $\frac{1}{4}$
Amsterdam ..	Florins to £	12·107	12·08 $\frac{1}{8}$ —08 $\frac{5}{8}$	12·08—12·08 $\frac{1}{2}$
Berlin ..	Marks to £	20·43	20·39 $\frac{1}{2}$ —40 $\frac{1}{2}$	20·39 $\frac{1}{2}$ —40 $\frac{1}{2}$
Vienna ..	Schillings to £	34·58 $\frac{1}{2}$	34·44—34·49	34·44—34·49
Budapest ..	Pengo to £	27·82	27·81—27·83	27·80—27·86
Prague ..	Kronen to £	24·02 (a)	163 $\frac{1}{8}$ —1 $\frac{1}{16}$	163 $\frac{1}{8}$ —163 $\frac{7}{8}$
Warsaw	Zloty to £	43·38	43 $\frac{1}{16}$ —43 $\frac{7}{16}$	43 $\frac{1}{16}$ —43 $\frac{7}{16}$
Riga ..	Lats to £	25·22 $\frac{1}{2}$	25·10—25·22	25·17—25·22
Bucharest ..	Lei to £	25·22 $\frac{1}{2}$ (b)	806—810	806—810
Constantinople	Piastres to £	110	990—1,005	988—998
Belgrade ..	Dinars to £	25·22 $\frac{1}{2}$	275 $\frac{1}{2}$ —276 $\frac{1}{4}$	275 $\frac{1}{2}$ —276 $\frac{1}{4}$
Kovno ..	Lits to £	48·66	48 $\frac{3}{4}$ —49 $\frac{1}{4}$	48 $\frac{3}{4}$ —49 $\frac{1}{4}$
Sofia ..	Leva to £	25·22 $\frac{1}{2}$ (c)	669—673	669—674
Reval ..	E. Kr. to £	18·159	18·06—18·11	18·06—18·11
Oslo ..	Kroner to £	18·159	18·19—19 $\frac{1}{2}$	18·19—19 $\frac{1}{2}$
Stockholm	Kronor to £	18·159	18·13—14 $\frac{1}{2}$	18·13—13 $\frac{1}{2}$
Copenhagen	Kroner to £	18·159	18·18—18 $\frac{1}{2}$	18·18—18 $\frac{1}{2}$
Alexandria ..	Piastres to £	97 $\frac{1}{2}$	97 $\frac{7}{16}$ —97 $\frac{1}{16}$	97 $\frac{7}{16}$ —97 $\frac{1}{16}$
Bombay ..	Per rupee	18d.	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$
Calcutta ..	Per rupee	18d.	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$
Madras ..	Per rupee	18d.	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$	1/6 $\frac{1}{2}$ —1/6 $\frac{1}{16}$
Hong Kong ..	Per dollar	—	2/0 $\frac{1}{4}$ —2/0 $\frac{1}{16}$	2/0 $\frac{1}{4}$ —2/0 $\frac{1}{16}$
Kobe ..	Per yen	24·58d.	1/10 $\frac{1}{2}$ — $\frac{1}{12}$	1/10 $\frac{1}{2}$ — $\frac{1}{12}$
Shanghai ..	Per tael	—	2/7 $\frac{1}{2}$ —2/7 $\frac{3}{8}$	2/7 $\frac{1}{2}$ —2/7 $\frac{1}{4}$
Singapore ..	Per dollar	2/4	2/3 $\frac{3}{4}$ —2/3 $\frac{7}{8}$	2/3 $\frac{3}{4}$ —2/3 $\frac{7}{8}$
Batavia ..	Fl. to £	12·107	12·08 $\frac{7}{8}$ —09 $\frac{7}{8}$	12·08 $\frac{7}{8}$ —09 $\frac{7}{8}$
Manila ..	Per dollar	24 066d.	2/0 $\frac{7}{8}$	2/0 $\frac{7}{8}$
Rio de Janeiro	Per mil.	—	5 $\frac{7}{8}$ —5 $\frac{1}{2}$	5 $\frac{7}{8}$ —5 $\frac{1}{2}$
Buenos Aires ..	Per dollar	47·577d.	47 $\frac{1}{2}$ — $\frac{1}{2}$	47 $\frac{1}{2}$ — $\frac{1}{2}$
Valparaiso*	Dollars to £	40	39 65	39·63
Montevideo ..	Per dollar	51d.	50 $\frac{5}{8}$ —51 $\frac{1}{8}$	50 $\frac{5}{8}$ —51 $\frac{1}{8}$
Lima* ..	£E to £P	Par	19 $\frac{3}{4}$ % prem	19 $\frac{3}{4}$ % prem.
Mexico ..	Pesos to £	9·76	9·85—10·15	—

* Ninety days.

(a) Par now 164·25 $\frac{1}{2}$ kr per £1 (b) Par now 813·6 lei per £1.

(c) Par now 673·659 levas per £1.

and telegraph for foreign exchange operations tended to equalise the rates in any two centres, one on the other, so that the rates quoted by London on foreign places were approximately the same as those ruling in foreign centres on London.

Strictly speaking, the table of London exchange rates quoted by the newspapers may still be described as the "London Course of Exchange", for it is intended to give the reader some indication of the course of the London exchange rates on the previous day. But whereas

RATES OF EXCHANGE.

The Economist, February 14, 1929.

London on	Country	Method of Quoting	Usance	Par.	Feb. 16, 1928.	Feb. 7, 1929.	Feb. 14, 1929.
New York	United States	Dollars to £1	Cable	4 86½	4 87½-7	4 85½-1½	4 85½-1½
Montreal	Canada	Dollars to £1	Cable	4 86½	4 88½-1½	4 86½-86½	4 86½-86½
Paris ...	France	Francs to £1	T.T.	124 21	123½-4½	124 18-20	124½-16
Berlin	Germany	Marks to £1	T.T.	20 43	20 42½-3	20 46-½	20 43½-46½
Amsterdam	Holland	Florins to £1	T.T.	12 107	12 11-½	12 12-½	12 11½-7
Brussels	Belgium	Belgas to £1	T.T.	35 00	35 01½-02½	34 89½-90½	34 92½-93
Milan	Italy	Lire to £1	T.T.	92 46	92-92½	92 70-80	92 78-85
Berne	Switzerland	Francs to £1	T.T.	25 22½	25 34-34½	25 23½-2	25 23½-2
Oslo ...	Norway	Kroner to £1	T.T.	18 15½	18 31-2	18 19½-4	18 19½-4
Stockholm	Sweden	Kronor to £1	T.T.	18 15½	18 16-½	18 15-½	18 15½-16
Copenhagen	Denmark	Kroner to £1	T.T.	18 15½	18 20-20½	18 19½-2	18 19½-20
Madrid	Spain	Pesetas to £1	T.T.	25 22½	28 70-2	31 10-20	30 90-95
Lisbon	Portugal	Escudo to £1	T.T.	4 50†	2 ½-½†	109½-110	109½-110
Vienna	Austria	Schillings to £1	T.T.	31 58½	34 59-62	31 53-58	34 53-6
Prague	Czecho-Slovakia	Krone to £1	T.T.	24 02(a)	164½-½	163½-4½	163½-164
Belgrade	Yugo-Slavia	Dinars to £1	T.T.	25 22½	276½-7½	276-½	276½-277
Budapest	Hungary	Pengo to £1	T.T.	27 82	27 89-92	27 81-4	27 83-87
Bukarest	Rumania	Lei to £1	T.T.	25 22½(c)	791-4	804-7	810-813
Sofia	Bulgaria	Leva to £1	T.T.	25 22½(d)	672-7	669-74	670-675
Athens	Greece	Drachma to £1	T.T.	375	368-370	374½-5½	374½-5½
Constantinople	Turkey	Piastres to £1	T.T.	110	960-965	980-5	983-88
Warsaw ...	Poland	Zloty to £1	T.T.	43 38	43½-4	43½-3	43½-3
Helsingfors	Finland	F marks to £1	T.T.	193 23	193½-½	192½-3	192½-193
Kovno	Lithuania	Lats to £1	T.T.	48 66	48½-9½	48½-9½	48½-49½
Reval ...	Estonia	Kroon to £1	T.T.	18 15½	18 00-18 40	18 12-22	18 15-25
Riga	Latvia	Lats to £1	T.T.	25 22½	25 15-30	25 15-25	25 15-25
Alexandria	Egypt	Piastres to £1	Sight	97½	97½-17	97½-½	97½-½
Buenos Aires	Argentina	Pence to peso	T.T.	47 62d	47½-2½	47½-1½	47½-3½
Rio de Janeiro	Brazil	Pence to mls	90 days	16	5½-½	5½-½	5½-½
Montevideo	Uruguay	Pence to peso	T.T.	51	50½-1½	50½-51	50½-51
Valparaiso	Chile	Dollars to £1	90 days	40	39 33	39 62	39 59
Lima ...	Peru	Eng to Per £1	90 days	Par	23½ prem.*	19½ prem	19½ prem
Calcutta	India	Ster to rupee	T.T.	18 {	1/5½-6	1/6-1/6½	1/6-½
Bombay		Ster to rupee	T.T.		1/5½-6	1/6-1/6½	1/6-½
Madras		Ster to rupee	T.T.		1/5½-6	1/6-1/6½	1/6-½
Hong Kong		Ster to dollar	T.T.		2/0½-1½	2/0-½	1/11½-2/0½
Shanghai	China	Ster to tael	T.T.	—	2/6½-7½	2/6½-7½	—
Singapore	Straits S	Ster to dollar	T.T.	2½ 4d	2/4½-1½	2/3½-2½	2/3½-2/3½
Kobe	Japan	Ster to yen	T.T.	24 58d	1/11½-½	1/10½-½	1/10½-½
Manila	Philippines	Ster to peso	T.T.	24 06d	*2s 0½d	*2s 0½d	*2s 0½d
Mexico	Mexico	Pesos to £1	T.T.	9 76	23 80-21-30(b)	9 90-10 10	9 90-10 05

* Rate for previous day

(a) Par now 164 25½ krone per £1

(b) Pence to dollars.

† Pence to escudo

(c) Par now 813 6 lei per £1.

(d) Par now 673 659 levas per £1.

the obsolete "London Course of Exchange Table" could be regarded as an official market publication, *The Times* rates (and those of other papers) are obtained by the newspaper in an entirely private capacity, and it seems best to distinguish the present list of quotations by describing it as the "Foreign Exchange Table". At the same time, it may be observed that *The Times* quotations, although they are privately compiled and obtained, are now regarded for legal and other

purposes as the official rates of exchange ruling in London on the dates indicated.

“The Economist” Exchange Table.—The table published by *The Economist* is a model of the type usually published in the reputable financial papers at the present time. The reader will note several differences between this list and that of *The Times*. The second column, giving the names of the various countries quoted, has been inserted by the author for the guidance of the reader, but, in addition, it will be seen that *The Economist* table states the meaning of each quotation more clearly, and also specifies the *usage* (or type of remittance) for which the rates are given. In both tables the rates for specific days are given to enable persons interested to obtain some idea of the movement of the rates, while for purposes of comparison *The Economist* also gives the rates of exchange ruling in London on a day approximately twelve months before.

Changes following the Great War.—A comparison of the centres and currencies included in the lists dated 1920 with those in the more recent lists throws a most interesting and instructive light on the effect of the Great War on the foreign exchanges.

During the Great War and for some time afterwards, no rates of exchange were quoted on several of the disorganised Balkan States, and for this reason no quotations are given in *The Times* list for November, 1920, on such centres as Constantinople (Turkey), Budapest (Hungary), Sofia (Bulgaria), and Belgrade (Servia—now Yugo-Slavia). On the other hand, the more recent lists include the London rates of exchange on the capitals of the new post-war European States—Reval (Esthonia), Riga (Latvia), Helsingfors (Finland), Kovno (Lithuania), and Budapest (Hungary). The quotations for Christiania (Norway) and Yokohama (Japan) which appeared in the old tables are now given under Oslo and Kobe respectively. Oslo is the new name adopted since the War by Norway for her capital, while Kobe has been quoted in place of Yokohama since the disorganisation of the latter centre by the great Japanese earthquake of 1924.

The reader will also observe changes both in the names and in the mint par values of several of the currencies of foreign countries, notably Belgium (unit now the *belga*), Austria (unit now the *schilling*), France (mint par now 124·2134 francs = £1), Italy (mint par now 92·46 lire = £1) and India (fixed parity of rupee with sterling now 18d.).

The Double Quotation.—A most important feature of the London exchange lists is that for most places a double quotation is given.

In the case of *The Times* this double quotation represents the *limits*

of buyers' and sellers' prices, or the *range* of fluctuations, i.e., the highest and lowest rates at which transactions were effected on the date given. The actual rate, however, at which business is done depends on the magnitude of the operation, on the keenness of the bargaining, and on other considerations, the chief of course being the relation between the demand for and the supply of the foreign currency concerned. A heavy demand and a short supply sends prices up; a redundant supply coincident with weak demand brings prices down.

It should be understood that the practice of giving in exchange tables the *range* of rates on a given date is by no means general. Frequently, the quotations are the actual rates for buying and selling the various currencies which ruled at a certain fixed time on the date indicated. When the quotations in such cases are in the foreign currency, the lower quotation represents the dealer's selling rate and the higher quotation the rate at which he is prepared to buy, subject to necessary adjustments if the business is very small or unusually important. The difference between the two rates is thus comparable with the jobber's turn on the Stock Exchange.

The Economist quotations are of the type here described, the list representing the rates current with a famous London firm of exchange dealers at 2 p.m. on the day prior to publication. Similarly, *The Financial Times*, *The Manchester Guardian*, and *The Morning Post* give the latest dealing rates obtainable from the sources on which the editor relies for his foreign exchange information.

Published Quotations are merely Indicative of Dealing Rates.—The fact that these periodicals publish the latest dealing rates for buying and selling should not be taken to imply that business could actually have been done at the quotations given. Business will actually have been done somewhere between the two rates. If *The Financial Times* gives the rates on New York at $4.86\frac{5}{16}$ – $4.86\frac{3}{8}$, the figures mean that business was *offered* by the dealer furnishing the quotations somewhere near the rates given. Obviously to every transaction there is both a buyer and a seller, and the final rates at which transactions are effected are fixed only after some slight bargaining, say, slightly more than $4.86\frac{5}{16}$ for sellers and slightly less than $4.86\frac{3}{8}$ for buyers, probably at $4.86\frac{11}{32}$.

Moreover, in the case of sales of foreign currencies as in the case of sales of other commodities, there is a "*retail*" and also a "*wholesale*" price. Banks and dealers who are exceptionally well placed, and conduct operations on a very large scale, deal at exceptionally favourable rates. These rates are only rarely divulged, hence it often happens

that the quoted rates are simply those which serve for relatively small transactions.

The Foreign Departments of the banks send the larger branches each evening a list of rates for their guidance on the following day, although all important operations above certain fixed limits are based on rates obtained by telephone direct from the dealers at Head Office.

Ordinarily, the rate given to an important customer in London will be that ruling when the enquiry is made or the order executed, and this may differ considerably from the closing rate and from the extreme rate for the day as given in the Press. On the other hand, for small transactions in their Metropolitan and country branches, the banks usually apply *The Times middle rate for the previous day*, i.e., the mean of the two extremes for buyers and sellers.

It should now be clear to the reader why the rates at which banks transact business for their customers rarely coincide with the rates published in the newspapers—a fact which not infrequently calls for a little ingenious explanation on the part of a harassed bank cashier or accountant.

Close Price and Wide Price.—When the margin between the buying and selling rates quoted by a dealer is small, the customer is said to obtain a “*close price*”, and it may be regarded as an indication that the rate of exchange concerned is fairly steady. Where, however, there is a good margin between the two figures, it is a sign that the exchange concerned is fluctuating and uncertain, the quotation being in such circumstances referred to as “*wide*”. The mean of any two buying and selling prices is called a “*middle price*”, to be clearly distinguished from *The Times* “middle rate of the day”, which, as already explained, is the mean of the *extreme* buying and selling prices quoted by London dealers on the previous day.

“Official” Quotations.—In some tables of exchange rates only one rate is given for each centre, as in the case of the New York quotations on page 153. Usually the quotation then represents the *official* closing rate for the date indicated, and the bulk of exchange operations for that date are settled at the rate given. As a rule, the rate in such cases is fixed by certain brokers appointed by a committee representative of the foreign exchange market, and is arrived at by a consideration of the rates at which business was actually done in the Bourse itself at a certain fixed hour on the date concerned, 1.30 in some centres, 2.30 in others, and so on.

The great advantage of such an arrangement is that it provides an official and generally accepted rate for any particular date, whereas

different methods of quoting the rates such as exist in London give no really satisfactory method of record. Moreover, the fixing of an official quotation settles once and for all the rate at which bills drawn in foreign currency on the country concerned have to be paid, the rate so fixed being valid up till twelve o'clock the next day, provided, of course, a bill bears no special exchange clause which entitles the collecting banker to collect at a different rate.

Prior to 1921 a quasi-arrangement of the sort existed in London, the rates fixed at the bi-weekly meeting of bankers and brokers, and published as the *London Course of Exchange*, being regarded as more or less official. Since the discontinuance of this meeting, suggestions have from time to time been made that some method should be devised for issuing an official table of London rates of exchange for each day. So far, however, the absence of any such official quotations is partly met by the recognition of *The Times* quotations for legal and other purposes as the ruling London rates of exchange on foreign centres, but these rates are not accepted as a basis for dealings in the market, nor can they be *insisted upon* for any purpose.

When, therefore, a banker in the City now presents for payment a draft drawn, say, in marks on London, he attaches a slip giving the amount of sterling he will accept for it, leaving it to the drawee either to accept that rate, or to try to do better in the market or with his own banker, as, for example, by buying a banker's draft in marks for the face amount of the bill and paying this bank draft to the banker presenting the bill in settlement thereof.

Rates in Foreign Money.—It will be seen that the important centres are quoted in foreign units per £1, and, in these cases, the dearest rate will be the one in which least foreign units are given per £1. The *lower* rate quoted by *The Times* is therefore the limit to *selling* prices, while the *higher* rate is the limit to *buying* prices on the date indicated.

Another point to be observed is that whereas some rates are given in decimal form, others are expressed by whole numbers and vulgar fractions. Many market operators both here and abroad would welcome a general use of decimals for all the quotations, and more especially for the important rate on New York, which, at the present time, is quoted in the London market to the nearest $\frac{1}{64}$ of one cent.

In practice, all rates of exchange are quoted to the nearest recognised "step" or dealing figure for the particular rate concerned, i.e., to the nearest $\frac{1}{32}$ of a cent for the dollar rate, the nearest $\frac{1}{32}$ of a penny for the rates on the Far East, usually to the nearest $1\frac{1}{4}$

cents (or $\frac{1}{80}$) in the case of the Swiss, Spanish and Belgiau rates, and so on. It is for this reason that the Mint Par between Britain and Switzerland is always given in market quotations as $25 \cdot 22\frac{1}{2}$ (the nearest step of $1\frac{1}{4}$ c.) instead of $25 \cdot 2215$, the figure obtained by calculation. A rate thus given to the nearest dealing figure is sometimes described as the nearest *commercial* or *market* rate.

Par of Exchange Column.—The figures included in this column are the *approximate* equivalents, used for market purposes, of British currency in terms of the currency of the various centres quoted in the table. Thus the mint parity with countries on the Latin standard (see Chapter XIX) is invariably given in exchange tables as $25 \cdot 22\frac{1}{2}$, although the equivalent obtained by calculation is $25 \cdot 2215$.

The advantage of the column of parities is that it enables us to see at a glance whether the rates given in the table are favourable to this country or not, and for this purpose we must keep in mind our maxim that “High rates are for us, and low rates against us”. If a rate given is in foreign money, and is over the Mint Par, it is in favour of Britain, and *vice versa*. In *The Times* table for November, 1920, the rates on New York, Montreal, Berne, Madrid, and Stockholm were all against us, whereas the rates on Berlin, Vienna, Helsingfors, Prague, Warsaw, and Bukarest were far removed from the mint parities and overwhelmingly in our favour. The rate on Leningrad was altogether omitted.

Rates in Sterling per Foreign Unit.—The rates on Mexico, the East, and South America are quoted in pence and shillings per foreign unit. In this form of quotation, the most favourable rates for this country are those where the foreign coin exchanges for less than its par value in our money. “Low rates are for us”, so that in *The Times* list for 9th and 10th January, 1929, the rates on Buenos Aires, Kobe, and Singapore are in our favour, while those on Bombay, Calcutta, and Madras are against us, since they are quoted *above* the par of exchange.

No comparison of the position of the Hong Kong and Shanghai rates can be made, because no Mint Par is given for these places, which have a silver and not a gold standard currency.

Classes of Rates.—Except in one or two cases, no indication is given in *The Times* table as to the class of remittances for which the rates are quoted, but, as a general rule, the rates included in all modern exchange tables are for cable or telegraphic transfers, a fact which is clearly indicated by the column of “usances” in the list taken from *The Economist*.

In the case of *The Times*, the exceptions are the rates on Valparaiso and Lima, both of which are stated to be "90 days". These quotations are telegraphed to London from the centres concerned and represent the rates quoted, in Valparaiso and Lima, at the close of business two business days before the date of publication, for bills on London payable 90 days *after sight* (i.e., the rates allow for 93 days' interest after arrival in London).

The Economist specifies the usance on Rio de Janeiro also as being 90 days, and states that the rates on Alexandria (Egypt) are for sight remittances, whereas *The Times* gives no special indication regarding the rates on these centres. Since *The Economist* and *The Times* quotations are not obtained from the same source, it is possible, but unlikely, that the dealers who supply the tables have different ways of quoting for remittances to these centres. The rates quoted on these centres in the London Foreign Exchange Market, however, are always for T.T., so that *The Times* is undoubtedly correct.

The Foreign Exchange Article.—In *The Times* and other newspapers the table of foreign exchange rates is generally accompanied by a brief commentary on the principal movements of the foreign exchange rates during the preceding business day. Unfortunately, the comments are always couched in market jargon which is almost unintelligible to those well versed in foreign exchange, let alone the ordinary reader, and it is by no means uncommon to find in the comments some indication of a serious confusion of thought on the part of the assistant City Editor responsible for their compilation.

The reader who seeks to unveil the mysteries of modern foreign exchange must, however, make it his first business to obtain such an acquaintance with the foreign exchange lists and their accompanying market report as to be able to understand immediately what the writer wishes to convey. With the object of affording some assistance in this direction, we will proceed to consider, step by step, the commentary accompanying *The Times* quotations for 10th January, 1929. In following the explanatory notes, the reader should make constant reference to the rates for that day and also for the preceding day, as given in the table on page 140.

"*The New York Exchange displayed strength during the early part of the day, the rate rising to $\$4.85\frac{3}{16}$.*" This is a particularly good example of the type of comment which cannot fail to confuse the student of Foreign Exchange. In seeking to determine its meaning we must remember that the City Editor is referring to rates of exchange

quoted by London on other centres, and, therefore, that in this statement he is dealing with the London rate of exchange on New York. He means that during the early part of the day the rate showed strength so far as London was concerned, i.e., that more dollars were purchasable per £1, and that the rate accordingly rose to $\$4.85\frac{3}{16}$. The reader can confirm this by comparing the rate for January 10th with that for the preceding day, January 9th.

“Subsequently, however, much of the advance was lost, dollars being finally bid for on London account, and the closing quotation was $\$4.85\frac{3}{32}$, a rise of $\frac{1}{32}$ c. on balance.” This means that, as the day wore on, dealers in London were anxious to buy dollars and consequently forced up their value relative to sterling, i.e., fewer dollars could be purchased per £1 and the rate of exchange therefore moved against London and in favour of New York. Nevertheless, this demand for dollars did not completely wipe out the previous advance in favour of London, and at the close of business the rate of exchange was about $\frac{1}{32}$ c. above that for the previous day.

“Forward dollars were not quite so much offered, particularly in the case of the longer dates.” A currency, like any other commodity, is offered when sellers thereof are in excess of buyers. On the date in question, sellers were not as eager to dispose of their holdings of dollars for forward delivery, particularly for delivery in three or six months' time.

“The German Exchange at 20m.40 was slightly easier.” The mint par between London and Berlin is Rmks. 20.429 per £1, so that the exchange rate of Rmks. 20.40 is in favour of Germany and against London. In considering this comment we must again bear in mind that the City Editor is dealing with the matter from the point of view of London, and when he speaks of an exchange being easier he intends to convey that the rate had fallen, i.e., that less reichsmarks were purchasable per £1 and consequently that the rate on Berlin moved slightly against London. This is indicated by the fact that the lowest quotation on Berlin on January 9th was $20.39\frac{1}{2}$, whereas the lowest on the following day was $20.39\frac{1}{4}$ —a difference of $\frac{1}{4}$ Rmk. in favour of Germany.

“Some of the other Continental rates continued to move in favour of sterling, the Swiss Exchange further advancing to 25f. 20 $\frac{1}{4}$, etc.” A movement in favour of sterling means that the £1 can purchase more foreign currency than previously, hence the several rates referred to moved upwards, and the currencies concerned became less valuable in terms of English money.

"*Spanish pesetas were dearer, the Madrid rate closing 2 c. lower at 29 71½ c.*" Since pesetas were dearer, less were purchasable per £1, and consequently the rate on Madrid fell until at the close of business on the 10th January the rate quoted was about 2 centimos below the closing rate for the previous day.

"*The Italian rate moved in favour of the lira.*" By this statement it is meant that the lira became more valuable in terms of sterling, i.e., *the rate moved downwards*. A reference to the quotations will indicate, however, that the City Editor has fallen into one of the many traps set for the unwary in connection with foreign exchange quotations. On the 10th January, 92·68–92·73 lira were quoted per £1, whereas on the 9th the quotations were *lower* at 92·64–92·70. Clearly, therefore, the lira was more valuable on the 9th than on the 10th. Hence the movement on the 10th January represented a *cheapening* of Italian currency, and was therefore against the lira and not in its favour.

"*Turkish currency showed depreciation*" A currency depreciates when more of it can be bought per £1 than before. Consequently, more Turkish piastres were purchasable per £1 on the 10th January than on the 9th (990–1005 as against 988–998), and the rate therefore rose in favour of London.

"*Weakness was again apparent in the Japanese exchange, the Kobe rate closing $\frac{1}{16}d.$ lower at $1/10\frac{9}{16}d.$* " It will be seen from the table that, on the 10th January, less pence had to be given for the Japanese yen than on the preceding day, i.e., the yen had weakened or fallen in value in terms of sterling.

If the reader will carefully consider this comment in relation to that made on the New York rate, he will observe that the City Editor of *The Times* was most unhappy in his choice of expression in the article we are considering. He refers to the London on New York exchange as "displaying strength" and "rising" *in favour of London*, whilst in the same paragraph he speaks of the "weakness" of the Japanese exchange when it also moves in favour of London! It would have been less confusing if he had referred to the strength of *sterling exchange on New York* and to the weakness of the *Japanese currency*.

The Course of Exchange Table.—The difference between the old Course of Exchange table and those just considered is evident, the former list being far less imposing than the others, and rates only on the most important centres being quoted. This was due to the fact that whereas all financial centres in the world have been long accustomed to draw and sell bills on London, few bills, comparatively speaking,

have in the past been drawn by London on other places, the consequence being that the rates of exchange on London were, generally speaking, of greater importance to foreign than to British merchants.

The rates given in the table are now merely of historic interest, but a brief explanation of their significance is appended for the guidance and interest of the reader.

Method of Quoting.—The Course of Exchange table indicated the nature of the remittance, but gave no explanation of the meaning of the figures in the quotation. In order to assist the reader, the meaning of each rate has been added in a fifth column. The rates quoted were in foreign money per £1, with the exception of the three months' rate on Spain, and the rates on Lisbon, Oporto, Buenos Aires, and Rio, which were quoted in pence per foreign unit. With one or two exceptions, the rates quoted were for cable remittance, which, as previously explained, is the most expeditious, but most expensive mode of making payments abroad. For rates in foreign money, the higher the rate the more foreign units are obtained per £1 in London, and therefore the cheaper the form of remittance. Bearing this in mind, we see that, on the date of the table, the three months' rates on Paris and Switzerland were cheaper than the cable rates to the same countries, and this accords with our previous reading that a long dated bill is cheaper than a short bill, because the holder has to lose interest while he waits for his money, and shoulder whatever additional risk attaches to that form of remittance.

The Double Quotation.—The two quotations given in the old course of Exchange Table did not, as in the Foreign Exchange table, represent the range of prices, but were *two separate quotations for two distinct classes of bills or remittances*, the extent of the difference depending on the kind of bill or remittance.

Cables.—The reasons for differences in the prices or rates charged by the banks for cable remittances have been explained in the preceding chapter. Subject to the considerations there discussed, the cheaper rate quoted at any particular time is for large remittances, and the dearer (or *lower* rate in foreign money) is for small remittances. Thus on the date of the table, Fcs. 54·90 were wired for £1 if the operation was large, but only Fcs. 54·60 if the operation was small.

Cheques.—The rate quoted under this heading for Belgium was intended to cover all bills from those due on demand to those due in ten days' time. The latter were the cheaper, as some small amount of interest is lost while the bills are maturing, and this had to be allowed for. The dearer rate for demand drafts given by the table was there-

fore Fcs. 51·60. per £1, i.e., the lower rate in foreign money. For the same reason, a slight difference is noticeable in the New York quotations, but for New York *the demand* rate was the *cheaper* and the *cable* the *dearer* rate. The reason should be obvious.

Long Rate or Three Months' Rate.—This rate was quoted for three centres only, viz., Paris, Switzerland, and Spain, and represented the rates for bills payable in the foreign country three months after purchase in London. The rates quoted for these bills were cheaper (i.e., higher in foreign money) than those for cables, for the reasons previously given. The double quotation covered the two classes of bills, the dearer rate being for bank and financial paper, and the cheaper rate for trade bills.

Paris, three months, 55·35 (*Bank paper*), 55·65 (*Trade paper*).

Spain, three months, 46½ (*Trade paper*), 47 (*Bank paper*).

Since the Spanish rate was quoted in pence per five pesetas, the lower rate was the cheaper.

The double Spanish quotation was peculiar in that the cable rate was quoted in foreign money, whereas the long rate was always given in pence. The reason for this was that it enabled London merchants to make comparison more easily with the rates quoted in Spain, where the short rate on London was given in pesetas per £1.

As in the Foreign Exchange table, most of the rates quoted in the London Course of Exchange table were for cable remittances, indicating the preference of remitters for the speed, security, and ease of remitting by cable to the longer, more risky, and troublesome method of payment by bill, and the tendency to relegate the settlement of international debt to banks and financial houses and their agents abroad.

The letterpress accompanying this table is not difficult to understand. The reader should note carefully the rates which were referred to as moving in favour of this country. These fall into two groups: those which were quoted in sterling and those which were quoted in foreign money, and the two groups moved in an opposite direction to each other. The rates on France, Italy, Germany, Denmark, Finland, and Athens, being in foreign currency, went up; those on Buenos Aires and Rio, being quoted in our money, *went down*. The second part of the letterpress indicates that the currency units of the countries enumerated increased in value. As these rates were all quoted in foreign currency, our sovereign, therefore, decreased in value, and the rates moved against us, i.e., in a *downward* direction.

Rates of Exchange at Foreign Centres.—The following tables of the rates of exchange quoted in foreign centres are taken from *The*

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Economist and from French and German newspapers. They are reproduced here to convey some idea of the foreign method of quoting exchange rates and also to permit of their comparison with the lists of London quotations already considered.

In most cases the lists are self-explanatory, but where necessary a slight explanation of the meaning of the rates is appended. The reader is advised to study the lists carefully, noting whether the rates quoted are favourable or not to the countries concerned. In all cases the maxims given for buying and selling bills apply, but care must be taken to see whether the quotations are in the home or in a foreign currency.

In the French Course of Exchange a column has been added to the table to explain the meaning of the rates, and a perusal of this will show that the French method of quoting is a fairly homogeneous one, the principle being adopted of giving the value in francs of 100 units of the foreign currency, except for London, New York and Canada. It should be noted that the currency units of these three places are large in comparison with the franc, and so necessitate a variation from the general principle of quoting adopted by the French.

THE PARIS COURSE OF EXCHANGE.

January 12, 1929

Cours des Changes.

Explanation of Rate.

Etats-Unis (1 dollar)	25 5975	25 6075	Francs and centimes per Dollar	
Angleterre (1 liv. st.)	124 15	124 185	" " £1	
Allemagne (100 reichsm)	608	608 50	" " 100 reichsmk	
Argentine (100 pesos)	1,075	1,075	" " 100 pesos	
Belgique (100 belgas)	355 25	356	" " 100 belgas	
Danemark (100 cour)	682 75	—	" " 100 kroni	
Espagne (100 pesetas)	417 875	417 75	" " 100 pesetas	
Hollande (100 florins)	1026 25	1026 75	" " 100 florins	
Italie (100 lire)	134	131	" " 100 lire	
Norvège (100 cour)	682	682	" " 100 kronor	
Roumanie (100 lei)	15 35	15 40	" " 100 lei	
Suede (100 cour)	684 75	—	" " 100 kronor	
Suisse (100 francs)	492 50	492 50	" " 100 francs	
Autriche (100 schill)	361	—	" " 100 schillings	
Portugal (100 escud)	113 50	—	" " 100 escudos	
Canada (1 dollar)	25 26	—	" " Canadian dollar	
Tcheco-Slov (100 c)	75 00	75 90	" " 100 krone	
Pologne (100 zlotys)	287 50	—	" " 100 zlotys	
Finlande (100 mark)	64 25	—	" " 100 Finnish marks	
Livre égyptienne	—	—	" " Egyptian £1	
Peso mexicain	—	—	" " Mexican dollar	
Indo-Chine (piastre)	12 55	—	" " Indo-Chinese piastre	

The double quotation gives the limits to buying and selling rates respectively, and, as Paris dealers sell at the higher rate in their own currency, and buy at the lower rate, the first column gives the limits to buying prices for foreign currency on the previous day.

Most of the rates quoted in the Paris Course of Exchange are for telegraphic transfers, or for cable remittances, as in the case of the London Course of Exchange

THE BERLIN TABLE OF EXCHANGE RATES.

Wechselkurse vom 12. Januar 1929.

Auf.	In Berlin	In London	In Paris	In Zurich	In Amster- dam.	In Kopen- hagen.	In Stock- holm.	In Wien	In Prag
	M.		Fr.	Fr.	fl	Kr.	Kr.	Kr	Kr.
Berlin	—	20,41½	608,25	123,52,50	59,21,00	89,15,00	88,88,00	168,87	802,920
New York	4,2015	4,85,01	25,58½	5,19,70	2,49,36	3,75,00	3,74,12	710,25	33,78,50
London ..	20,388	—	124½	25,20½	12,09½	18,18,00	18,14,25	31,46½	163,88
Paris	16,125	12,1,11	—	20,31,00	9,71½	14,75	14,61,00	27,75,50	132,05
Zurich	80,86	25,20½	492,25	—	17,98,00	72,75,00	72,05,00	136,67½	650,15
Amsterdam	168,60	12,09½	9,26,75	208,45,00	—	150,60	150,07½	280,90	13,55,50
Kopenhagen	112,11	18,18½	682,75	138,60,00	66,48,00	—	99,77,50	189,50	901,25
Stockholm	112,39	18,14½	684,25	138,95,00	66,65,00	100,32	—	—	903,55
Oslo	112,04	18,19½	682,25	138,55,00	66,45,00	100,00	99,75,00	—	900,75
Wien	59,08	31,48	36,00	73,10,00	35,05,00	52,85	52,72½	—	474,90
Budapest	73,28	27,82,00	—	90,65,50	43,40,00	—	—	123,93½	—
Prag	12,443	1631½	75,80	15,38,00	7,37,50	11,13,00	11,12,50	21,02½	—
Brussel	58,42	31,89½	355,80	72,22,50	34,64,75	52,20,00	52,05,00	—	—
Madrid	22,00	92,71	133,90	27,19	13,03,00	19,70	—	—	176,77
Madrid	68,62	29,70,50	418,00	84,87½	40,71,00	—	—	—	551,95
Helsingfors	10,569	192,90	—	13,08,00	6,26,50	9,45,00	9,41,50	—	—
Warschau	47,05	43,27,00	—	58,20,00	—	—	—	—	—
Bukarest	2,521	807,00	15,40	312,00	1,47,50	—	—	—	—
Island	92,17	—	—	—	—	—	—	—	—

Although the table of exchange rates issued in Berlin appears somewhat complicated on a first sight, it will be found, on close examination, to be most instructive. It gives not only the rates of exchange quoted by Berlin on the world's principal centres, but also the rates by several of those centres on the others. Such information is naturally of the greatest utility to German bankers, exchange dealers, and merchants trading overseas.

NEW YORK RATES OF EXCHANGE.

February 10, 1927.

New York on—	Par Level.	Rate, Feb 11, 1926.	Rate, Jan. 27, 1927.	Rate, Feb. 3, 1927.	Rate, Feb. 10, 1927.
London					
60 days					
Cable					
Cheques					
Paris	cheques				
Brussels	"				
Switzerland	"				
Italy	"				
Berlin	"				
Vienna	"				
Madrid	"				
Amsterdam	"				
Copenhagen	"				
Oslo	"				
Stockholm	"				
Athens	"				
Montreal	"				
Yokohama	"				
Hong Kong	"				
Shanghai	"				
Calcutta	"				
Buenos Aires	"				
Rio de Janeiro	"				
Valparaiso	"				
Dollars for £1	1 8666	4 8150	4 807	4 792	4 801
Cents for 1 franc	19 30	4 861	4 851	4 851	4 851
Cents for 1 Belgia	13 90	4 851	4 848	4 848	4 8475
Cents for 1 franc	19 30	3 69	3 91	3 93	3 925
Cents for 1 lire	19 30	4 0312	4 3050	4 2750	4 33
Cents for 1 mark	23 81	23 80	23 69	23 69	23 69
Cts for Austrn shlg	14 07	14 125	14 15	14 15	14 125
Cents for 1 peseta	19 30	14 11	16 57	16 64	16 76
Cents for 1 guilder	40 195	40 06	39 94	39 955	39 995
Cents for 1 kroner	26 80	24 85	26 64	26 635	26 64
Cents for 1 drachma	19 30	20 34	25 725	25 72	25 75
Can Cents for \$1	100	26 77	26 675	26 67	26 67
Cents for 1 yen	49 85	1 4125	1 31	1 3075	1 30
Cents for H. Kong \$	—	% dis.	99½	99½	99½
Cents for 1 Shng tael	—	45 05	48 75	48 72	48 73
Cents for 1 rupee	—	58 00	50 50	51 75	50 60
Gold pesos for \$100	103 65	73 85	63 25	65 625	63 60
Cents for 1 milreis	32 42	36 80	36 38	36 23	36 32
Cents for 1 peso	12 166	108	107 00	106 50	105 70
		12 42	11 80	11 80	11 85
		12 125	12 125	12,½	12 10

* Cents for 1 franc.

The table on page 153 shows the rates of exchange quoted in New York on various centres. The rates are all for cheques or bills on demand, except in the case of the London rate, for which three forms of remittance are specified. The dearest of these is the cable rate, as more dollars are demanded for each £ payable in London by cable transfer than for either demand or 60-day bills.

New York exchange tables frequently include other rates. Thus the table reproduced by *The Times* gives rates on London for "grain bills at sight" and also for "Seven Day bills", while Paris, Amsterdam and Berlin are quoted "Short sight", a term which is explained on page 104.

The third column gives the Mint Par values with gold standard countries, and a comparison of the rates with these values will indicate whether the exchange is favourable or not to the United States. No par is quoted with the silver standard countries, for the reason already given.

The rates for three weeks, and also for the corresponding period last year, are given for comparison, but it will be noted that one rate only is included in respect of each date, that being the closing or "marked" rate on the date indicated.

All centres are quoted in the same way except London, Montreal, and Buenos Aires, and the values are given in cents per foreign unit, i.e., the majority of the quotations are *fixed*, *certain* or *direct*.

It is, however, instructive to note here that the rates on France, Belgium, Switzerland, and Italy have only been quoted in this way since the beginning of December, 1920. Previous to this date, the rates were given in francs and lire per dollar, but all the rates have now been brought into line except the two previously mentioned. The London quotation is likely to remain as it is for two reasons: (a) because the £ is rather a large unit, (b) to facilitate comparison with the rate quoted in London.

Dominion Rates of Exchange.—The two tables on page 156 show the rates between London and the Union of South Africa, the Commonwealth of Australia, and Dominion of New Zealand, where the standard coins—sovereigns—are precisely the same in weight and fineness as those of the Mother Country. The Mint Par in all cases is therefore £1 = £1, and consequently the London exchange rates on Australia and New Zealand are quoted in terms of so many English pounds per £100 deliverable in one of the Dominions, while those on South Africa are quoted in terms of premium or discount per cent. In effect, both of these forms of quotation are identical, and the rates

quoted by the Dominions on London are expressed in the same fashion.

As some difficulty is frequently experienced in understanding why such a premium or discount should exist when the exchange is quoted in terms of sterling for sterling, it may be stated that the possession of £100 in London by an Australian or South African does not by any means imply the possession of £100 in Australia or South Africa. In the first place, it will be realised that, assuming the £100 represents gold, there is considerable expense involved in moving gold all the distance from Britain to Australasia or South Africa. In fact, what is sometimes referred to as the "geographical factor" is of considerable importance in connection with these exchanges.

Secondly, the exchange mechanism with these countries is mainly in the hands of the Dominion banks, which have offices in London and meet the demands for remittances to and from Britain out of the supplies of funds at their disposal in London and in the Dominion concerned. Thus the Australian banks in London sell remittances on Australia which are paid out of their balances in that country, while their various branches in the Dominion sell remittances on this country which are paid out of the balances in the hands of the London offices. Conversely, British claims on Australia are purchased by the London offices of the Australian banks, and the collected proceeds of these claims in due course increase the balances at the disposal of the banks in Australia.

Now the rates, i.e., the premium or discount, at which remittances are bought and sold by the banks depend on the relation between the amounts of their balances in London and their balances in the Dominion concerned, for apart from the fact that the banks endeavour to employ their funds to the best advantage, they consistently aim at keeping adequate but not unduly large balances at either end and particularly at not accumulating too great balances in London. Consequently, if the Australian banks, for example, have accumulated large balances in London which they wish to transfer to the Dominion, they endeavour to discourage an increase in those balances (and to discourage payments out of their cash resources in Australia) by charging high rates for remittances to Australia, i.e., the Australian exchange tends to a *premium*, possibly £103 having to be paid into an Australian bank in London to command a payment of £100 in Australia.

On the other hand, the banks will show their eagerness to *buy* claims on Australia by offering better prices therefor in the form of an increased premium in the exchange, i.e., they may offer £103

in London for a £100 claim on Australia, for the purchase of such a claim, whether it exists as a bill or otherwise, enables them to get rid of a part of their London balances and at the same time to increase their Australian funds with the collected proceeds. For

OVERSEAS DOMINIONS RATES.

COMMONWEALTH OF AUSTRALIA AND DOMINION OF NEW ZEALAND.

	London on Australia and New Zealand				Australia and New Zealand on London			
	Buying		Selling		Buying		Selling	
	Aus- tralia	New Zealand	Aus- tralia.	New Zealand	Aus- tralia	New Zealand	Aus- tralia	New Zealand
T.T. .. .	—	—	—	—	—	—	—	—
Sight .. .	—	—	—	—	—	—	—	—
Cable .. .	—	—	par	par	101	—	102½	102
On demand ..	97	97	par	par	100¾	99	101¾	101¾
30 days ..	96¾	96¾	—	—	99¼	98½	101¾	100¾
60 days ..	95½	95½	—	—	99½	98	100¾	100¾
90 days ..	95½	95½	—	—	98½	97½	100½	100
120 days ..	—	—	—	—	97¾	97	—	—
5 months' sight	—	—	—	—	97¼	—	—	—
6 months' sight ..	—	—	—	—	96¾	—	—	—

SOUTH AFRICAN EXCHANGE RATES.

The South African banks quote the following rates of exchange:—

	Union of South Africa.		Union of South Africa	
	From Nov. 29, 1920		From Nov 29, 1920	
	London on South Africa		South Africa on London.	
	Buying.	Selling	Buying	Selling
	Discount	Discount		Premium
T.T. .. .	—	4¼ %	4½ % prem.	5½ %
Demand .. .	6 %	4½ %	3¾ % prem.	5½ % to 5¼ %
30 days .. .	6¾ %	—	2¾ % prem.	4¾ %
60 days .. .	7½ %	—	2 % prem.	4½ %
90 days .. .	8¼ %	—	1 % prem.	4½ %
120 days .. .	9 %	—	par	—

the same reason, banks in the Commonwealth will *sell* exchange on London at a *discount*, i.e., they may offer to pay out £100 in London against payment of only £97 or £98 in Australia, for such a transaction enables them not only to increase their funds at home but also to get rid of a portion of their surplus London balances. Similarly, they will endeavour to lessen the drain on their resources at home

and to avoid adding to their London balances by increasing the discount (i.e., lowering the prices) at which they will *purchase* produce bills on London from the exporters. Reverse conditions would naturally apply if the London balances of these banks were to be unduly depleted.

But while the rates on the Dominions are thus fixed by the banks, it must be understood that in normal times, when gold exports between these countries and Britain are unhindered, the expense of moving gold imposes limits to the rise and fall of the exchange, for while bullion movements are also in the hands of the banks, they cannot usually demand more or offer less for remittances than traders would pay and receive respectively if gold remittances were made.

It remains to be explained that fluctuations in these exchange rates are ultimately determined by the same causes as affect other rates. Chief amongst these factors is the flow of trade, which in the case of the Dominions is of an essentially seasonal character. Thus in Australia, for example, the resources of the banks are considerably depleted in the winter months by the great demands for currency and for accommodation to finance the wool clip and harvests, and to finance the great autumnal exports of wool, meat and grain to this and to other countries. Thus the depletion of the resources of the banks in Australia coincides with a great accumulation of funds by their London offices, whose balances are swollen by the constant stream of payments made by world importers of Australian produce.

Similar conditions arise if one of the Dominions borrows heavily in this country and considerable amounts are placed to her credit at the London offices of her banks. Again the balances in this country are increased, whereas the funds raised may actually be required for payments within the Dominion, and there is a consequent drain on the banks which it is difficult to meet. The rates on the Dominion therefore tend to a premium, and it will be realised that if heavy borrowing on foreign markets coincides with the accumulation of large surplus funds abroad in consequence of a favourable trade position, the difficulties of the banks in dealing with the transfer of funds become extremely pronounced. (See *post*, page 360.)

One point in connection with these exchanges which emerges from the foregoing explanation is that, as the rates are fixed from time to time by agreement between the banks concerned, the fluctuations are by no means as frequent as in most other cases. Such fluctuations as do occur are necessarily seasonal, the rates in London tending to rise in September and October in consequence of the great

movement of crops, and to fall in April when the excess of Dominion exports gradually diminishes.

A further feature of these exchanges is that competition for business therein is strictly limited to the Dominion banks with offices in London. It is, therefore, not surprising that, in consequence of the prevalence of high rates, the banks are frequently blamed by traders for manipulating the exchanges to their own advantage and without sufficient consideration of the burden imposed on the trading community by the high cost of making necessary remittances.

The rates quoted in the tables on page 156 should now be easy to understand. It should be noted that the London rates on the Dominions are chiefly at a discount, whereas the Dominions quote London at a premium. Rates are quoted for several kinds of remittances, the dearest rates being those for T.T.'s, or demand drafts.

From the lists we see that London bankers were buying bills on demand on Australia at £97 per £100, or at a discount of 3 %, and New Zealand bankers were selling bills on demand on London at a premium of $1\frac{3}{8}$ %. The South African rates are simply quoted at a premium or at a discount. London bankers were selling demand drafts on South Africa at a discount of $4\frac{1}{2}$ %, that is, a £100 demand bill realised £95½. On the other hand, a 60-days' bill on London for £100 was bought in South Africa for £102, or at a premium of 2 %. The rate quoted at "par" indicates that £100 in one place purchases the right to £100 in the other.

The basic rate is that for T.T. or cables, and the difference, or "*spread*", between this and the other rates depends almost entirely on the amount of interest which must be taken into account before the various remittances fall due for payment.

Thus the London bankers' buying rate for demand bills on South Africa on the date of the quotations was 6 % discount, or £94 per cent., whereas 30 days' (or one month) bills were being bought at $\frac{3}{4}$ % per month, or 9 % per annum, more cheaply, and all the other long rates were proportionately cheaper. On the other hand, South African banks were buying T.T. on London at $4\frac{1}{2}$ % premium, i.e., at £104½ per £100, and 120 day (or four months') bills at par, a difference of $4\frac{1}{2}$ % per four months, or $13\frac{1}{2}$ % per annum.

A point of interest about these tables is that they sometimes omit London bankers' rates for *selling* long bills on the Dominions, although rates for *buying* such bills are always given, whilst Dominion rates on London always include prices for both *buying and selling* long bills.

This is still another result of the much quoted fact that London draws few bills but accepts and pays many.

Continental and Central American Rates of Exchange.—The following tables, also from *The Economist*, are interesting and will repay careful study.

CONTINENTAL RATES OF EXCHANGE ON GERMANY.

Country.		Par Level.	Feb 16, 1922.	Feb 1, 1923.	Feb. 8, 1923	Feb. 15, 1923.
Amsterdam	Florins to 100 marks	59 26	1 34	0 006	0 0072	0 0127
Switzerland	Francs to 100 marks	123 45	2 52½	0 012	0 015	0 0265
Copenhagen	Kroner to 100 marks	88 88	2 40½	0 012	0 0155	0 0265
Stockholm			1 91½	0 009	0 0109	0 0189
Christiania			2 99	0 013	0 0157	0 0270

This table of the prevailing rates of exchange between Continental "neutral" countries and Germany was published by *The Economist* throughout the War and for some years afterwards. During the period when no direct rates were quoted between Britain and Germany the quotations were useful as indicating the relative value of the pound sterling and the German mark (see *post*, p. 371), but with the resumption of direct quotations the publication of the table was discontinued.

CENTRAL AND SOUTH AMERICAN EXCHANGE RATES.

Under date June 15, 1929, the Anglo-South American Bank, Ltd., quotes the following rates of exchange:—

Country.	Usance	Market Drawn on	Par Value.		Latest Quotation
Bolivia	(90 d/s)	London	Pence to Boliviano		18d *
La Paz					18d
Colombia	(Sight)	London	Pesos to £1	5 00	5 04
Bogotá		New York	Pesos to \$100 (U S.)	102 77	103 50
Bogotá					
Ecuador	(Sight)	London	Sucres to £1	24 3325†	24 56
Guayaquil		New York	Sucres to \$1 (U S.)	5 00†	5 06
Guayaquil					
Guatemala	(Sight)	London	Quetzales to £1	4 8665‡	—
Guatemala City		New York	Quetzal to \$1 (U S.)	1 00‡	1 00‡
Guatemala City					
Nicaragua	(Sight)	London	Córdobas to £1	4 8665	4 92
Managua		New York	Córdobas to \$1 (U S.)	1 00	Par
Managua					
Salvador	(Sight)	London	Colones to £1	9 73	9 90
San Salvador		New York	Colones to \$1 (U S.)	2 00	2 04
San Salvador					
Venezuela	(Sight)	London	Bolivares to £1	25 25	25 21
Caracas		New York	Bolivares to \$1 (U S.)	5 18	5 20
Caracas					

* The Monetary Law dated July 11, 1928, established the new parity of the Boliviano at 18d.

† New parities of the sucre established by Law dated March 4, 1927

‡ The "Ley Monetaria" of May 2, 1925, established a new unit of currency, the gold quetzal, equivalent to one U.S. dollar, and to 60 pesos of the old currency.

Transactions on the countries in this list of rates are not of very frequent occurrence, and the quotations therefore represent the current rates of exchange at which business may or may not have been done on the date indicated.

FORWARD RATES OF EXCHANGE

Forward rates of exchange are those which are quoted for purchases or sales of foreign currency deliverable at a specified date. The full import of forward exchange operations is explained in Chapter IX, but the essence of these transactions is that a rate of exchange is fixed *now* between a banker and his customer at which a purchase or sale of a certain amount of foreign currency shall be completed on the specified future date, which may be one month, two months, three months or more ahead from the date of the bargain.

Although properly completed contract forms (see pages 382-383) are exchanged between banker and customer at the time the deal is effected, no actual cash passes until the agreed future date, when the foreign currency is delivered or taken by the banker, as the case may be, and the equivalent in sterling is paid or received by the customer.

Forward exchange facilities were available in certain important currencies even in pre-war days, but in recent years they have been very considerably extended, primarily because they enable traders to safeguard themselves against the risks attendant upon fluctuations in the rates of exchange. Even to-day, however, relatively little advantage is taken by the trading community of the undoubted protection afforded by forward exchange facilities, and it is for this reason that they are as yet available only in the most important currencies.

The Method of Quoting Forward Rates of Exchange.—Generally speaking, forward rates are above or below the spot rates (i.e., the actual exchange rates ruling on the date of the forward transactions) and are quoted at par or at so many points premium or discount. As an example, we give the rates on New York and Paris ruling at a certain time on May 5th, 1925, which were quoted as follows :—

“ New York, T.T. . . $4.85\frac{1}{4}$ Paris, T.T. . . 92.60.”

At the same time the forward rates were quoted :—

“ New York—1 month $\frac{1}{4}$, 2 months $\frac{3}{8}$, 3 months $\frac{1}{2}$, *premium*.”

“ Paris—1 month 45, 2 months 80, 3 months 112, *discount*.”

In the case of New York the fractions represent cents which are *deducted from* the spot rate (i.e., forward dollars are *at a premium* and dearer than spot dollars), while the figures in the Paris quotations represent centimes which are *added to* the spot rate (i.e., forward francs are *at a discount* and are cheaper than spot francs).

The following table shows how the actual rates are arrived at from the above quotations :—

FORWARD RATES.

	Spot Rate	1 month.	2 months	3 months.
New York ..	\$4·85½ \$4·85½	½ premium 4·85	¾ premium 4·84½	½ premium 4·84½
Paris	Fcs. 92·60 92·60	45 discount 93·05	80 discount 93·40	112 discount 93·72

From these figures it will be seen that when forward quotations are at a discount and the rate is quoted in foreign currency, more currency is obtainable per £1 at the end of the stated time than would be obtained by a purchase of spot currency, and, on the other hand, when forward currency is quoted at a premium, the forward rate is lower than the spot rate and consequently less currency is obtained at the end of the fixed time than could be purchased by a spot deal. It should be noted also that the forward quotations, as to the premium or discount, may remain the same although the spot rate may fluctuate.

Forward quotations are sometimes given for buyers and sellers in “double-barrelled” form in the same way as the spot rates. Thus the forward rates on Paris may be quoted as “10–20 c. per month, discount,” at a time when the spot rate is given as 124·00–124·12½, and in such circumstances the forward rates would be as follows:—

	Selling	Buying
Spot rate	124·00	124·125
1 month forward rate ..	124·10	124·325
3 months' forward rate ..	124·30	124·725

The reader should observe that the margin between selling and buying prices increases as the forward period lengthens.

Forward Exchange Quotations.—It remains to be stated that forward exchange rates on the principal centres are nowadays quoted in the newspapers in conjunction with the lists of daily quotations

which are discussed in the foregoing paragraphs, and references are almost invariably made in the Foreign Exchange Article to the fluctuations which have taken place in the forward rates. A study of the following quotations and references from *The Financial Times* and *The Manchester Guardian Commercial* should assist the reader to grasp the significance of the rates.

Forward Exchange Rates.

The Financial Times, 20th May, 1925.

The following approximate rates were quoted for business one month forward :—

	18th May.	19th May.
New York (b)	$\frac{1}{8}-\frac{1}{8}$ c.	$\frac{1}{8}-\frac{1}{8}$ c.
Paris (a)	35-45 c.	40-50 c.
Brussels (b)	7-2 c.	7-2 c.
Amsterdam (b)	$\frac{3}{4}-\frac{1}{2}$ c.	$\frac{3}{4}-\frac{1}{2}$ c.
Italy (b)	17-12 c.	15-10 c.

(a) Over "spot".

(b) Under "spot".

In this table of quotations the rates on Paris are over "spot", i.e., they are at a discount, and to arrive at the forward rates the amounts given in cents should be added to the "spot" rates as quoted on the same date in *The Financial Times* table of foreign exchange rates. On the other hand, the rates on New York, Brussels, Amsterdam and Italy are under "spot", i.e., the forward quotations for one month are at a premium, and the figures given in these cases must be deducted from the "spot" rates quoted by the newspaper for the same dates.

The following paragraph on forward rates is taken from *The Manchester Guardian Commercial*, and should be readily understood in the light of the foregoing remarks. A brief explanation is, however, appended for the further guidance of the reader :—

The forward markets have been dull. Forward dollars have been in strong demand on account of investment "swaps" and firm money rates in London with easy rates in New York. The premium paid has been as high as $\frac{1}{8}$ for one month and $\frac{1}{4}$ for three months. Other periods have been dealt in at various rates up to $\frac{1}{2}$ for six months. French francs have been between 40 and 50 centimes discount for one month throughout the week with a three months' quotation of Fc. 1·10-Fc. 1·20, but business has been only moderate. Forward lire still command a premium of 15 centesimi for one month and 40 centesimi for three months. The premium on Swiss francs and Dutch guilders is easing off, one month being practically at par in each case with the spot rate, while for three months a slight premium of $\frac{1}{2}$ centime is asked.

The fractions $\frac{5}{16}$, $\frac{11}{16}$ and $\frac{15}{16}$ used in connection with forward rates on New York are, as previously indicated, fractions of U.S. cents per £1, and as the rates are said to be at a premium, the fractions must in all cases be *deducted* from the spot quotations to give *dearer* forward rates for purchasing dollars. It will be noted that the premium on dollars on the date in question was due chiefly to transfers for investment purposes, the market preferring to keep its funds in London rather than in New York by reason of the higher money rates in the former centre, and thus resorting to purchases of forward dollars against spot sales, as explained on page 227. In other words, holders of dollars in New York sell them for sterling in London and purchase forward dollars, thus fixing the rate at which they will ultimately convert their sterling holdings into dollars.

Another point is that, whereas the forward rates for Italian lire, Swiss francs and Dutch guilder are at a premium, those for forward French francs are at a discount. The amounts given will therefore be *added* to the prevailing rate in the case of France, while the amount of the premiums in the other cases will be *deducted* in order to give *dearer* forward rates.

CHAPTER VIII

CAUSES OF FLUCTUATIONS IN THE RATES OF EXCHANGE

It is the purpose of the present chapter to examine in greater detail the various factors or influences which bring about changes in the relative values of two currencies, or, as it is most frequently stated, those factors which cause fluctuations in the prevailing rates of exchange.

Since the rate of exchange between one currency and another is determined, at any particular time, by the relation between the demand for and the supply of the two currencies concerned in their respective exchange markets, and, in the long run, by the purchasing power parity between the two forms of money, it follows that the factors which bring about changes or movements in the rate of exchange between two currencies must be divisible into two groups:—

- (a) The influences which have greatest effect *in the short period* because they produce changes in the daily (and even hourly) relationship between demand and supply on the Foreign Exchange Market; and
- (b) The influences which have greatest effect *in the long run* because they modify the relationship between the purchasing powers of the two currencies concerned.

For the sake of clarity, it will be advantageous to consider these factors principally by reference to the rates of exchange between London and other centres.

FACTORS WHICH INFLUENCE THE DEMAND FOR OR SUPPLY OF A CURRENCY.

In ordinary circumstances, both the demand for and the supply of a foreign currency on the London Foreign Exchange Market arise mainly from the necessity of settling *legitimate* business debts between this country and the foreign country concerned, and the intensity

of demand and supply, or, in other words, the *activity of the market* in the foreign currency, will depend very largely on the amount of those debts which are in process of being settled.

The aggregate amount of debts owing at any moment by two nations to each other is made up in several ways, but it must be made clear, at the outset, that the *total* amount due from one country to another at any particular moment has no immediate effect upon the prevailing rates of exchange. France may, in the aggregate, owe Great Britain one thousand million pounds, and Great Britain may owe France no more than the same number of pence, but, if the debts are not to be settled till this day next year, they can have no influence on the rate of exchange between Paris and London to-day, or this day next week. It is not the *aggregate* total of outstanding indebtedness that affects the rate of exchange between any two countries; it is that portion of it which is *immediately arising for settlement*; that cumulative proportion of outstanding debts of all kinds which the debtors of both countries endeavour to settle immediately by seeking means to remit

For convenience, we will consider the various sources of international indebtedness which give rise to the daily demand for and supply of a foreign currency under the following main heads: (1) Trade Conditions, (2) Stock Exchange Transactions, (3) Banking Operations; and (4) Speculative Dealings in Exchange.

TRADE CONDITIONS

The main source of indebtedness arising for settlement between any two countries is the import and export of goods, and, in ordinary circumstances, the most important influence affecting the relationship between the demand for and the supply of one currency in relation to the other is the necessity for making payments for goods passing to and fro between the two countries concerned. If the debts arising for settlement between any two countries A and B resulted solely from the exchange of goods between them, then we should find that the trend of the rate of exchange between their two currencies would reflect the *direction or balance of current trade* between the two countries. If, during the first quarter of the year, A exported more goods to B than B exported to A, then A would have more claims against B than B would have against A. In country B there would be more debtors of A than creditors, and, if settlements for the goods were being made forthwith, the rate of exchange on A in B would be

favourable to A and unfavourable to B. Reverse conditions would prevail if, in the second quarter of the year, B exported more goods to A than were received in exchange. In such circumstances, the rate of exchange would move favourably to B and unfavourably to A.

But apart from the indebtedness arising from the purchase and sale of goods, debts of considerable magnitude are created between different countries in respect of a variety of *services* connected with the exchange of commodities. The movement of goods from one country to another involves expense in the form of freight, packing, and insurance; landing and warehousing charges; commission for a factor or broker who effects the purchase in the one country or the sale in the other, and, as likely as not, commission for a bank or accepting house which finances the transaction and ensures due payment for the exporter. All such items result in the creation of debts, additional to the actual selling price of the goods, which have to be paid to the country whose services are given.

The majority of debts arising in this way from services rendered in connection with the movement of goods are settled at the same time as the debts due in respect of the goods themselves. In many cases, the expenses of shipment are added by the exporter to his invoice, and thus the payments made by foreign importers ordinarily include a percentage for carriage, insurance and other charges (see page 235). If the exporter does not charge the items separately on his invoice, he will naturally recoup himself by increasing the price charged for the goods.

Debts due for Services have the Same Effect as Debts due for Goods.—But, in whatever way the services are paid for, the important point to observe is that, so far as the foreign exchanges are concerned, it matters nothing whether debts become due to a country from the sale, or from the insurance of goods; whether payments are for money lent, or for services rendered. The demand for and supply of exchange is influenced by payments and receipts for non-merchandise items just as much as it is by payments for recorded imports and exports of commodities.

Let us suppose, as before, that country A trades with country B, but that all the goods are carried in B's ships and that the insurance and financing of most of the shipments are effected by highly developed agencies in B. What then should we expect? Clearly, that A must pay B considerable sums on account of these various services. Indeed, we might find that, even though the quarterly balance

between imports and exports, i.e., the *visible balance of trade*, was actually in favour of A, yet when the debts due for services are taken into account, the *net balance of payments* made and received between the two countries, or the *net balance of indebtedness*, as it is called, might very well be in favour of B. We may illustrate the position with some imaginary figures as follows:—

QUARTERLY STATEMENT OF INDEBTEDNESS BETWEEN
COUNTRIES A AND B.

Due to A for—		Due to B for—	
Exports to B	£36,000,000	Exports to A	£34,000,000
Balance in favour of B	£2,500,000	Services rendered to A	£4,500,000
	<hr/>		<hr/>
	£38,500,000		£38,500,000
	<hr/>		<hr/>

If there were no other factors to be taken into account, the obvious result of this position would be that, in general, the debts in process of payment by A to B would exceed the debts being paid by B to A. The great majority of these debts would set-off or cancel one another, but the *balance of current payments* on trade account in favour of B would tend to influence the exchanges in her favour and adversely to A.

This statement must not be understood to imply that the rate of exchange between two countries is in any sense *determined* by the balance of trade payments or by the balance of trade indebtedness. It will be explained later in this chapter why any such conclusion is impossible. Moreover, there are a great many other factors besides trade which influence the rates of exchange. The whole point to be observed here is, that since the short period rate of exchange is determined by the conditions of daily demand and supply, the current payments arising from trade must exert an important influence on the prevailing rates because trade is ultimately the main cause of the demand for and supply of remittances between any two countries.

Let us take the argument a step farther and consider the trade of country B, not solely with country A, but with the rest of the world. Let us suppose that B is a highly industrialised country, such as Great Britain or Germany, and that her exports consist mainly of manufactured articles and industrial minerals which are sent all over the world in return for imports, chiefly in the form of food and raw materials.

Now suppose that B's total annual imports of goods from the various countries of the world are much in excess of her total annual

exports. What should we expect in such circumstances? Clearly, that since B will have more debts to pay than payments to receive, her exchanges with other countries will tend to be unfavourable. But let us suppose, as before, that B has a great mercantile marine and is highly organised as a world financial, insurance and investment centre, her ships carrying goods for all other nations, and her bankers, financiers and underwriters bearing the financial burden and risk of half of the world's trade. Obviously, considerable sums must annually accrue to B in respect of these services, and those sums, if they are not paid in money, i.e., gold, or in securities, must be paid in the form of goods. In other words, the excess of B's imports of goods will represent payments being made to her for the many services rendered to other nations by her shippers, bankers and underwriters. Whilst B's balance of trade may be unfavourable, the net balance of trade payments may be considerably to her advantage, and, as a result, the direction of trade indebtedness will tend to exert a favourable influence on her exchanges.

The Demand for and Supply of Sterling on Trade Account.—This, in fact, is precisely the position so far as Great Britain is concerned, and a most important factor bearing on her rates of exchange is that much of the world's foreign trade is conducted and financed through British intermediaries, who have no direct concern with the actual goods bought and sold. Their only interest is in the commission they earn as buying or selling agents for the goods, or as carriers, or as insurers of the goods, or from financing the transactions in the capacity of acceptors of the bills drawn in respect of the goods. Consequently, in considering the influence of trade operations on the London exchanges, we have to look beyond the actual trade conducted by the United Kingdom on its own account, and include in our view much of the trade of foreign countries as well.

An illustration will make this clear. In New York, the supply of bills on London is greatest in the autumn, because then the enormous cotton and grain crops of the States are shipped, and many bills are drawn to cover the shipments. A great part of this produce is bought by, and consumed in, this country, and is paid for by drafts on London; but much of it goes to other European countries, and this also is paid for by bills drawn on London, the foreign importers being liable for the amount of the bills *plus* commission, to the London acceptors of the drafts on their behalf. The result is, then, that in the autumn, bills on London are plentiful and cheap in New York, and the exchange on London is in favour

of the United States. But at other times of the year the tide turns, and the New York exchange is usually in favour of London. For then, owing to the large exports to the States of British manufactured goods, and to the number of bills accepted in London on behalf of U.S. importers of the products of other nations, such as tea and silk from China, and manufactured goods from Germany and other European countries, the demand in New York for bills on London exceeds the supply. One of the effects of the War has no doubt been to lessen London's activities as a financier of *extra* British trade, but the preference of the foreign trader for payment by a bill on London is still most marked, and all evidence seems to indicate that the London bill is fast regaining its former pre-eminence.

Sufficient has been said to demonstrate the fact that the demand for and the supply of sterling exchange is largely influenced by the trade conditions of other nations. Hence, if we confine our attention for the moment to the *trade* demand for and supply of sterling in the world's foreign exchange markets, we may summarise the position briefly as follows:—

Demand.—The demand for sterling abroad on trade account arises to enable foreign importers to pay (1) our merchants and manufacturers for goods supplied by us; (2) our shipping and insurance companies, and brokers for the freight and insurance of the goods; (3) our merchants, brokers, accepting houses, and bankers for commission, brokerage, and interest on such mercantile business as is transacted for foreign account, and (4) other countries for goods imported from them and services rendered by them which are settled by bills and other remittances payable in London.

Supply.—The supply of sterling abroad on trade account is furnished chiefly in the form of bills drawn by foreign merchants and exporters of goods to this country (1) for the shipments made to our importers, including the cost of freight and insurance; (2) for their charges for any of the miscellaneous services enumerated above, which they undertake for British account; and (3) by arrangement with London accepting houses and banks, for the purpose of making payments to other nations for goods exported and services rendered.

STOCK EXCHANGE TRANSACTIONS

These comprise: (a) Investment, and (b) Speculation in International Stocks and Shares; (c) The Issue of Long-Period Loans; (d) Payment of Dividends and Interest, and Repayments of Capital.

Investment.—The growth, throughout the world, of Joint Stock Companies, whose capital divided into shares, or consolidated into stock, is freely transferable, and the institution in the chief cities of Stock Exchanges where stocks and shares can easily be marketed, has resulted in the capital of many of the world's chief corporations being held more or less internationally. An American citizen, for example, may hold a block of the shares of Vickers, Ltd., or of J. & P. Coats, Ltd., or a Frenchman may be the owner of stock in an American railway. Similarly, securities representing national debts provide a wide area for international investment.

Now, a purchase of British securities on the London Stock Exchange for foreign account, or a sale in New York of U.S. securities for British account, creates a debt due *to* London; a sale of British securities in London for foreign account, or a purchase abroad of foreign securities for British account, creates a debt due *from* London. In any such cases, the purchasing or investment centre *imports* share certificates, debentures, scrip or bearer bonds from the other country, and such imports have to be paid for in precisely the same way as other imports. Either the centre selling the securities offers the currency of the importing country on the foreign exchange market, or the importing centre enters the market as a buyer of the other country's currency. Thus the export and import of securities has the same effect on the rates of exchange as the export and import of goods: heavy investment by country A in the securities of country B has the same effect on the exchange rates as extensive exports from B to A—the rate of exchange is influenced in favour of B and against A.

At times, extensive operations of this kind may cause a sharp movement in exchange rates, as was strikingly illustrated in October, 1917, when the continued selling of American securities by Britain and Germany caused the American exchange to rise rapidly. Another notable instance occurred in the summer months of 1928, when a marked fall in the value of the yen on the London Foreign Exchange Market was brought about by extensive purchases of securities on the London Stock Exchange by Japanese banks, which in this way sought to find a profitable outlet for the large volume of deposits concentrated in their hands as a result of the 1927 crisis in that country. The extent of this influence may be gathered from the fact that one Japanese institution alone was stated to have purchased £5,000,000 of securities on the London Market during the year following the crisis referred to.

During and immediately after the Great War there was practically no investment by British nationals in overseas securities, but in more recent years there is ample evidence that British investors, and particularly insurance companies and investment trusts, are returning to their old favourites. Each year increasing sums are being placed in American stocks and bonds, while not inconsiderable amounts are passing into Continental securities, and especially those of France and Germany.

In the other direction, we have a steady stream of sales from the London Stock Exchange to the British Dominions, which, as they become richer and more independent of the Mother Country, buy back the securities imported from them in the days of their youthful development. Furthermore, the insatiable demand throughout the world for good class, high-yielding investments has resulted in certain British securities, and in particular those issued by the British Government, being in regular demand by investors in the United States and other countries.

Speculation in Stocks.—Speculation in international stocks implies chiefly the purchase of foreign stocks and shares in anticipation of a rise in their price, with no immediate intention of holding them for investment and income purposes. Action of this kind tends to be more spasmodic than investment pure and simple, and, for this reason, its effect on the exchanges is much more erratic. Very considerable movements may take place in consequence of a sudden speculative demand in one country for certain securities of another, or in consequence of some factor, such as low interest rates, which renders one centre particularly attractive to others for the speculative purchase of securities.

Prior to the War, considerable speculative business in American stocks was transacted from London, dealings in futures and options through New York brokers being found very attractive by a section of the British public. There were also extensive speculative dealings between the chief European centres—London, Paris, Brussels, Amsterdam, Frankfort, Berlin, and Milan—the great bulk of the transactions being, of course, effected by telegraph or telephone, as they are effected between London and New York by cable.

During the War years, this business was naturally discontinued. So far as American stocks are concerned, British interest has been slow to revive because the active market on this side disappeared with the sale of the greater part of British holdings of such securities to meet the immense obligations due to the United States. On the

other hand, considerable sums have in recent years passed from New York to London for speculative investment in British stocks and shares. Most readers will recollect the unprecedented boom in the prices of British industrial shares during the later months of 1928 in consequence of the apparently insatiable demand from New York. Speculative business in stocks between the chief European centres is now at least as large as it was in pre-war days, having been greatly facilitated by the extension of telephonic and telegraphic communication and by the development of the foreign exchange markets, here and abroad.

The development of economic and financial internationalism, evidenced by this interchange of securities, necessarily has an important influence on the prevailing rates of exchange. In all such speculative operations, as in the case of investment pure and simple, the purchase and sale of securities give rise to debts which the purchasing centre has to pay in return for the certificates and bonds imported from the selling centre. Consequently, there is on one side a demand for foreign currency and on the other side an increase in the supply.

This aspect of internationalism is not without its element of danger. The exchange market may be suddenly and seriously disturbed by the dumping abroad of large blocks of securities accumulated by a country which is for some reason plunged into a financial or industrial crisis. Moreover, "Central banks rightly fear speculation in stocks and shares as particularly dangerous to credit stability. Redundant imports of securities are more easily attracted than redundant imports of commodities, and, once imported, are more likely to remain unabsorbed in the hands of dealers or speculators." *

On the other hand, international investment and speculation are not without their advantages. The freer negotiability of national stocks and shares on an international market has beneficial effects on joint stock enterprise, while the wide distribution of the debits and credits arising from these stocks and shares over a number of countries tends to lessen the shock and minimise the danger of those industrial and financial disorders which are apparently inevitable in the modern commercial organisation.

Stock Arbitrage.—Closely allied to the speculative purchase of stocks is the form of operation known as "stock arbitrage," involving the purchase of an international security on one stock market and its sale in another at a favourable difference in price. A London

* "The Gold Standard and the Balance of Payments," R. G. Hawtrey. *Economic Journal*, March, 1926.

dealer may get into simultaneous touch by telephone with the stock markets in Paris and Amsterdam, and may secure a quick and certain profit, without the outlay of much capital, by purchasing such international shares as Royal Dutch Oil Ordinary in the one centre and selling them immediately in the other at a slightly better price.

Before the War, considerable business of this type was transacted between London and the important Continental centres by the London branches of foreign (and especially Continental) banks, certain large brokers, and a few of the smaller banks in the City. Strangely enough, the falling off in foreign exchange business, resulting from the stabilisation of world currencies, led to a considerable extension of arbitrage in stocks, especially between London and the principal Continental centres. Several of the large joint stock banks and many finance houses entered the business in the hope that it would bear part of the overhead expenses of their large foreign exchange and stock departments, while special arbitrage departments were opened by the London branches of several foreign banks. Moreover, the greater stability of the exchange rates was itself a stimulating factor, since it meant that stock arbitrage was rendered much easier and more certain of profitable result when movements in stock prices alone had to be considered.

The brokers who have long engaged in arbitrage did not view this invasion with any degree of pleasure, but without doubt the new-comers experienced considerable difficulty in finding the qualified and expert arbitrageurs so essential to the success of these intricate operations. On the other hand, the fact that the brokers are able to work free of the expense of exchange brokerage enables them to operate on a smaller margin than their competitors, and also to secure much business which the others would find unprofitable.

The success of stock arbitrage necessarily depends on the fact that slightly different prices are quoted on the various markets for the stocks concerned. The existence of different prices is accounted for partly by the fact that the quotations are in different currencies, necessitating an exchange conversion from one to the other, partly by differences in the relation between demand and supply for a certain stock at a given moment (frequently induced by varying conditions of ease and tightness of money in the respective centres), and partly by the variation in the times at which the stock markets open and close. The New York Market, for example, continues business several hours after the London Market, and each morning arbitrageurs in the latter centre have opportunities for profit in the differences

between the New York overnight prices and those at which the London Market opens

But while successful arbitrage depends on price differences, its effect is to *reduce* those differences. The various centres are so closely knit by telephone and telegraph, and the competition for the business is so keen, that any profitable margin soon disappears. On the other hand, the number of arbitrage securities tends constantly to increase, while the linking up of new centres by telephone opens up new avenues of profitable operation.

The Issue of Long-Period Loans.—In no direction has the growth of economic interdependence been more strikingly illustrated than by the increasing extent to which the wealthier nations of the world have lent their resources for various purposes to other countries, and, in particular, to those States in need of capital for the development and exploitation of their natural wealth. Investable funds accumulate in the financial centres of the older, highly commercialised countries, but the bulk of those funds are required for purposes of development and for the creation of new capital in remote new countries. Hence there is a constant flow of loanable capital from one group to the other.

In pre-war days, Britain stood unrivalled as a loaning country. From the early years of the nineteenth century until 1914, a constant stream of productive capital flowed to other lands from the great reservoir of wealth which Britain had amassed through her epoch-making inventions connected with the steam-engine, railways and textile manufacture. The savings of British investors contributed to the opening up of the gold mines of Australia and South Africa, to the development of the productive interiors of the Argentine and Brazil, to the construction of railways in India and China, to the establishment of rubber plantations in Malay, and to the planting of cotton fields in the Sudan. And happily for Britain, the outflow of capital was accompanied by an export of British machinery and manufactures, and of British skill, both of employers and of workmen. The textile and engineering industries, first of Belgium, then of Northern France, and later of Germany, owed much of their development to these exportations, while the subsequent growth of their mining industries was largely attributable to the import of inventions which came into being during the industrial revolution in this country. On the Continent, in North and South America, in Australia, South Africa and the Far East, railways laid and equipped with the aid of British capital and British contractors promoted still further develop-

ment, and a still greater demand for British products and British capital

Apart from assisting enterprise of a purely industrial or commercial character, British investors over a long period of years have financed foreign Governments and municipalities on a liberal scale, thereby releasing local capital for local purposes and so contributing materially to local progress. British capital has thus been poured all over the globe, adding to the productive power of all countries and of all peoples. British credit has long provided, and still provides, the machinery which finances the period between consumption in one part of the world and production in another.

British investors, who have thus given hostages to fortune by loaning money wherever money is needed, may justly claim to have done more than the nationals of any other country for the progress of civilisation and the advancement of man. And the City of London is able to maintain its great population with a standard of prosperity that is the envy of humbler centres because its bankers, financiers, accepting houses, discount houses, produce merchants, and allied businesses have rendered, and continue to render, unequalled service in promoting world development, world production and world trade.

Some idea of the extent of the financial assistance rendered in this way by Britain to other nations may be gauged from the fact that her aggregate overseas investments in 1914 were computed to be in the neighbourhood of £3,500,000,000. In consequence of the sales of our dollar securities during the Great War, it is estimated that this total has been reduced to approximately £2,000,000,000, although this figure is now being increased to the extent of about £150,000,000 per annum.

Since 1914, the United States of America has ranged herself alongside Britain as a great loaning country. In pre-war days, the United States owed the world about £1,000,000,000, but the fortunate position of that country during the Great War has enabled her not only to pay off practically the whole of this indebtedness, but also to lend the world, and war-stricken Europe especially, upwards of £4,000,000,000, of which sum about one-half represents foreign investments of private American capital. Statistics for 1927 and 1928 indicate that the United States are adding to this stupendous figure at the rate of approximately £400 millions a year.

The Effect of Foreign Loans on the Exchanges.—These figures are quoted to impress upon the reader the fact that the transfer of

such vast capital sums must have very important effects both on the distribution of world indebtedness and on the prevailing foreign exchange rates. The actual effect will depend on whether the money borrowed is taken in cash, i.e., gold, or whether it is used to buy goods or pay debts already owing in the lending country, or to purchase goods or wipe off debts owing in foreign countries.

If a loan is taken, not in cash, but in the form of machinery and of other manufactures of the *lending country*, there will be no immediate effect upon the exchanges of that country, since the proceeds are distributed amongst the suppliers of the goods and no foreign exchange transaction is necessitated.

If, however, the loan is utilised to buy goods of a *third country*, then that country is placed in the position to offer currency of the lending country on the world's foreign exchange markets, with the result that the exchanges of the lending country are adversely affected. The same result ensues if the borrowing country spends the money internally: her nationals offer currency of the lending country for sale and thus depress its price, i.e., unfavourably influence the rate of exchange.

Suppose, for example, that Brazil borrows £4,000,000 in London on the understanding that the money shall be spent in this country on the purchase of British goods—say on railway stock or on fighting ships. There will be no *immediate* effect on the rate of exchange between London and Rio de Janeiro: the effect will be indirect and spread over a period of time. Ultimately, the goods sent out of this country must be paid for, and such payment will be made gradually over a number of years in the form of interest, or spasmodically in the form of capital repayments. The effect is as if the home investor had ordered goods from the home producer and had sold them abroad on credit, receiving in return interest and repayment of capital in accordance with the terms arranged by the borrowing State.

Let us suppose, however, that the money borrowed is used by Brazil to purchase goods from some other country, or that she employs the funds at home on new constructive work, such as the building of roads, harbours and railways. If the funds are used to purchase machinery or ammunitions from Germany, German manufacturers obtain payment by drawing bills on London, thus increasing the supply of sterling in Berlin and influencing the German exchange against London. If the money is spent with contractors and traders in Brazil, they will naturally be paid in their own currency, but that

currency will have been obtained by the responsible authority through the sale of the sterling proceeds of the loan.

Ultimately, the result in both cases is that foreigners come into possession of sterling which they will want to use. In general, they will use it for the purchase of British goods, since the increase in the supply of sterling abroad makes the pound cheaper, and thus stimulates foreign purchases of British goods whose price is expressed in sterling. In such circumstances, it pays the foreigner to turn the sterling funds which come into his hands into locomotives, steel rails or other commodities of which he may be in need.

The final case is where the funds borrowed are used, either directly or indirectly, to purchase gold from London. Even so, the ultimate result will be the same. The export of gold from this country results in a contraction of credit here and a fall in prices. Foreign purchasers are encouraged to buy goods from us, and thus, in the last resort, the effect is the same as if the proceeds of the loan had in the first place been spent in this country. At the same time, the contraction of credit in this country raises interest charges and so discourages further borrowing until the exchanges move favourably and the position is adjusted.

“Every Foreign Loan Creates an Export.”—In normal circumstances these adjustments are usually sufficiently rapid to ensure that, in general, the proceeds of overseas loans go out of the country almost entirely in the form of goods and rarely in the form of gold. For this reason it is frequently stated that “*Every Foreign Loan Creates an Export*”, in illustration of which we may refer to the vast outflow of machinery and other manufactures which accompanied the extensive foreign investments made by Britain in the nineteenth century, and which have similarly resulted from the heavy loans raised in recent years by continental countries in the United States and elsewhere. Comments on the latter position are made and illustrated in the *Memorandum of International Trade*, 1913–27, published by the League of Nations. It is pointed out that European trade in 1927 developed more rapidly than that of any other continent, an increase of 13 per cent. being recorded over the previous year. This increase is attributed to the large foreign borrowing of European countries, and of Germany and Poland in particular.

The British Embargo on Foreign Loans during 1925.—The adverse immediate effect of heavy foreign loaning on the exchanges of the lending country received world-wide recognition during the early months of 1925, when Britain was in process of resuming the gold

standard. To strengthen the exchange and prevent the depletion of our gold reserves, the Bank of England, acting in consultation with the Treasury, considered it necessary to place an unofficial *embargo* on foreign loans on the London Money Market. This step undoubtedly had the required effect of steadying the exchange, and, in the circumstances, was possibly justified by the result which it was sought to achieve, and was doubtless preferable to the alternative of raising still further the Bank of England rate of discount.

At the same time, such active interference with foreign borrowing is not a desirable expedient for a country in the position of the United Kingdom, since it must react detrimentally on the position which London seeks to maintain as the world's foremost financial centre. Interference with external investment can be economically justified only when the amount so invested outstrips the surplus which the lending nation has available from the genuine savings of her people, but there is no reliable proof that this has occurred in the case of our own country. Moreover, we must recognise that, since foreign loaning tends to encourage exports and to increase the claims of the lending country on other nations, the *ultimate* effects of such loaning must be beneficial to the lending country, although the immediate influence on its exchanges may be unfavourable.

Of special importance so far as our own country is concerned is the fact that, in whatever way funds borrowed in this country are ultimately spent, Britain in the long run stands to benefit not inconsiderably from the entrepôt, financial, insurance and shipping services which it is more than likely she will be called upon to render in connection with the movement of goods made possible by loans granted to foreign countries. It is for these reasons that economists in this country with a true appreciation of the position welcomed the announcement of the Chancellor of the Exchequer in November, 1925, that the embargo on foreign loans had been removed.

Borrowing, Usually Advantageous, has its Limits.—The loaning of money abroad is not only advantageous to the lending country. Within limits, it also reacts to the greatest possible benefit of the borrowing State. By the financial help of Britain and other countries the younger nations of the world have been enabled to develop their vast natural resources, with ultimate benefit not only to themselves but also to the world as a whole. Only by resorting to loans from the more fortunately situated countries have the crippled States of war-worn Europe been enabled once more to get upon their feet and re-establish their decaying industries

There are less obvious benefits. We have observed that foreign loans tend to increase the exports of the lending country. Ultimately, they have the same effect on the exports of the *borrowing* State. When the latter pays interest or repays capital, people in the lending country come into possession of its currency, and will want to use it. Directly or indirectly, that money is spent in the borrowing country and its exports of goods are therefore increased.

But borrowing money has its limits. In this respect a nation is in much the same position as an individual. Borrowing can be justified only so long as the security remains good and credit is unimpaired. Too frequently, however, foreign borrowing is carried to excess, and therein lies the danger. While the *ultimate* effect of borrowing abroad is to encourage exports, the *immediate* effect is to encourage imports. The people employed locally on the development made possible by the foreign funds have more to spend. If they buy home products, there is an increase in the incomes of those who produce and deal in those products. Consequently, the people as a whole have more to spend on foreign commodities, with the result that imports are encouraged, frequently to a greater extent than is desirable.

Now a country which imports more goods than she can properly afford, whether they are necessities or luxuries, is in the same position as an individual who spends in excess of his income. When such circumstances arise, the position requires to be most carefully watched, otherwise the nation concerned may find itself in most serious financial difficulty. In this connection the following statement* of Dr. de Scitovszky, a former Hungarian Minister for Foreign Affairs, is of special interest: "The inflow of foreign loans into Hungary has naturally facilitated the increasing consumption of foreign commodities and has contributed to the heavy import surplus of her foreign trade. It was only natural that after several years of privation the population's hunger for foreign commodities should be reflected in largely increased imports, . . . but there is little doubt that the heavy deficit of her foreign trade cannot be maintained for long." (See also page 243.)

We may conclude then that a country should resort to borrowing from other countries only in so far as it can hope to be able to meet the interest and other charges as they fall due, and also to pay off the capital sum loaned in a reasonable time, out of exports of commodities produced within her own boundaries.

* *Financial News*, February 20, 1929.

Various Methods of Borrowing have the Same Result.--Although the general effect on the rates of exchange is similar in all cases, there are several ways in which loans are negotiated in one country on behalf of another. Thus China may borrow huge sums in this country by inviting applications through London financial houses for various forms of stock or bonds. The proceeds are then utilised by the issue of bills or other forms of remittance against the accumulated funds, for making payments either in this country or abroad. Another method is to send bonds for sale in London, and at the same time to draw bills against the probable proceeds, using these bills to obtain immediate capital for disbursements. When the bills fall due they are paid off out of the proceeds of the gradual sale of the bonds, which are held as security by the London accepting houses or financiers on whom the bills are drawn.

During recent years loans of considerable magnitude have been granted, particularly by the United States and Britain, in the form of credits made available at central banks, against which payments can be made and foreign currency sold by the countries accommodated. This method has been widely adopted in connection with the re-organisation of the finances of various countries since the War. Some of the credits have been established with the assistance and co-operation of the League of Nations, while others have been arranged between the central banks of the borrowing and lending countries.

War Indemnities and Reparation Payments.—These have been a most important topic of discussion in recent years, the sums passing between various countries on account of these items being of such magnitude as markedly to influence the international exchanges. Ordinarily, the payment of a war indemnity or of a sum due on account of reparations must have the same effect on the rates of exchange as any other payment of large amount: the rate is influenced against the payer and in favour of the recipient.

But the position is complicated by the fact that such payments almost always involve the raising of loans, usually from a third country. Thus the indemnity paid by China to Japan, after the war between those countries, was largely paid out of loans raised in London, part of the proceeds being applied by Japan to purchase ships from us and the remainder being taken in the form of bills on London, which the Japanese used to make purchases in other countries.

Germany, again, has obtained the funds wherewith to meet the

reparation payments due from her under the Dawes Scheme by raising loans in other countries, especially in the United States. Hence, in spite of the magnitude of the payments, the German exchange has not yet been affected to any great extent. Ultimately, however, the repayment of the loans and the payment of interest thereon will influence the exchanges against Germany unless she can arrange to meet her obligations by considerably expanding her exports of goods and services. So far she has been faced with considerable difficulty in her endeavours to do this because of the high tariff barrier maintained by the ultimate creditor, the United States. For this reason, we are likely to witness acute controversy during the next few years over the question of the means by which Germany is to effect the necessary transfers to meet her reparation payments.

Payment of Dividends and Interest, and Repayment of Capital.—

The raising of loans tends at the time to turn the exchange against the lending and in favour of the borrowing country. But the periodical payments of interest on the loans have the reverse effect. Foreign purchases of British stocks and shares exert a favourable influence on the London rate of exchange at the time of purchase, but the periodical remittance of dividends earned thereon to the foreign holders tends the other way. Conversely, British purchases of foreign stocks, shares, and bonds, adversely affect the London rate of exchange at the time of paying for them, but the influence of these transactions is wholly favourable to this country when the dividends and interest due in respect of the holdings are being received. The repayments of capital by a borrowing to a lending State have at the time of the repayments an exactly similar effect on the exchange between the countries as the payments of interest on the borrowings, i.e., they tend to turn the rate of exchange against the borrowing and in favour of the lending State.

Sometimes the repayment of money borrowed is arranged by the establishment of a *Sinking Fund* in the lending country out of which some portions of the loan are paid from time to time, as, for example, by periodical drawings of bonds. In such circumstances, the borrowing country must each year remit to the lending country the agreed annual contribution to the Sinking Fund, and the effect on the rate of exchange is therefore favourable to the lender but adverse to the borrower, being on a par with any other form of repayment of capital.

BANKING OPERATIONS

Transactions in foreign currency originating from the operations of bankers at home and abroad most powerfully affect the rates of exchange. They will be discussed briefly under the following heads: (a) The Issue of Letters of Credit, Circular Notes, and Travellers' Cheques; (b) Arbitrage Operations; (c) The Transfer of Bankers' Funds from one country to another for short-term investment, as by the purchase of bills or otherwise.

The Issue of Letters of Credit, Circular Notes, and Travellers' Cheques.—Letters of credit issued by banks in this and other countries partake of such a variety of forms, and are of such importance to the trading community, that a consideration of the utility and characteristics of the principal types must form the subject of a later chapter. At this point it is merely necessary to observe that the issue of letters of credit ultimately results in an increase in the supply of the currency of the country of issue in the hands of foreign nationals, and, consequently, tends to influence the exchanges against the issuing country and in favour of the country wherein the letters of credit are made available. An Englishman who cashes sterling circular notes in Switzerland receives Swiss francs in exchange from the encashing agent or banker, who thereby comes into possession of English money which he must subsequently convert into his own currency. The same effect is produced when a Swiss exporter of goods to South America obtains payment by drawing bills on a London exporting house. The supply of sterling on the Swiss Foreign Exchange Market is increased, and the influence is consequently against London and in favour of the country wherein the letter of credit is made available.

Arbitrage Operations in Exchange.—These are transactions undertaken by exchange dealers with the object of realising profits from differences in the exchange rates ruling at various centres at the same time. They are often hazardous, and can be profitably conducted only by bankers and brokers operating in conjunction with branch houses or agents in other financial centres. The business requires great skill, and, as the dealings must be conducted almost simultaneously, the telephone and the cable are the necessary means of communication.

Suppose, for example, that at a time when the T.T. rate in London on Paris is Fcs. 124·10 = £1, a London operator is informed by telephone from Paris that the T.T. rate in Paris on London is

Fcs. $124 \cdot 12\frac{1}{2} = \text{£}1$. An arrangement may be made whereby the Paris house immediately sells "London in Paris," to the extent of £10,000, at the rate of Fcs. $124 \cdot 12\frac{1}{2}$; realising Fcs. 1,241,250, at the same time the London operator sells "Paris in London" to the amount of Fcs. 1,241,000. For this he receives £10,000, wherewith he is enabled to pay the sterling sold by his Paris correspondent. The net result of the transaction is that there remains the sum of Fcs. 250 to the credit of the parties in Paris, and this amount, after deducting expenses, is halved by the two operators, and represents their profit in the operation.

If a number of dealers undertake similar operations the effect will be to depress the value of sterling in Paris, i.e., lower the rate of exchange on London, and to depress the value of francs in London, i.e., send up the rate of exchange on Paris. Hence the rates of $124 \cdot 10$ and $124 \cdot 12\frac{1}{2}$ will be moved in reverse directions until they are approximately equal, i.e., *at parity*, and no profit can be made by further arbitrage.

This is an example of simple or *two-point* arbitrage, but transactions of this kind may be much more complicated, and may involve three or more currencies. If the Paris exchange on London is high, a Paris banker having sold T.T. on London, and being under the necessity of providing cover, may find that his cheapest way of doing so is to buy Dutch florins in Paris and to sell these in Amsterdam for sterling balances in London. Being nowadays in constant touch with all important centres by telephone, he knows the trend of the market in the various currencies. Hence he buys in the cheapest market and sells where the price is highest.

Furthermore, dealers know by experience that certain centres are specially good markets for particular currencies. The leading position of the London Foreign Exchange Market, with its experience and resources, its geographical advantages and wide range, is sufficient to ensure that the rates quoted by the London dealers are usually as good as can be obtained elsewhere. For this reason, no Continental dealer would put through a transaction of any magnitude without first of all "feeling" the London Market. Amsterdam, largely by reason of her intermediary position during the War and partly because of her geographical situation, is an excellent market, so far as London is concerned, for dealings in marks, belgas, French francs and dollars. In the same way, Berne and Zurich are strong markets for lire and pesetas, while Stockholm is recognised as good for transactions in American dollars and, of course, in all Scandinavian currencies.

Hence the continental dealer who is under the necessity of buying a considerable amount of sterling or dollars first of all establishes telephonic communication with the centres which are usually in a position to offer these currencies at the best rates. In deciding which is the best rate at which to operate, he makes use of one or other of the various types of calculating machines always to be found in the dealers' offices. As soon as a dealer in Paris, say, hears the rate quoted by Amsterdam and Berne on London, he quickly applies his calculating machine to determine the cost of sterling bought through those centres compared with its cost to him in the Paris market. Frequently, the sterling will be bought through two or more centres. It is merely a question of buying at the lowest obtainable price, and it does not matter to the dealer, concerned with an important operation, whether that price is obtained by the purchase and sale of one, two, three or even more currencies, i.e., whether it involves a *two-*, *three-* or even *four-point* arbitrage operation.

Clearly, the result of this close communication between the various centres, combined with the fact that dealers do not hesitate to take advantage of the slightest difference of the rates in their favour, means that a heavy demand for, say, sterling or dollars, in one continental centre tends to increase the demand for those currencies in other centres. As a result, the rates of all those centres move sympathetically in favour of London or New York.

Reverse conditions arise when one continental centre becomes a heavy seller, say, of sterling, or when London is a large buyer of a continental currency, the European rates on London move adversely. Precisely the same considerations apply between the continental centres themselves, but sufficient has been said to explain the fact, to which reference has already been made, that the principal European exchanges on London have a pronounced tendency to rise and fall together.

It frequently happens that the rate at which the dealer can buy sterling (or, of course, any other currency) direct is the same as the arbitrated or indirect rate which he would obtain by operating through two or more given centres, in which case the term *parity* is again applied to indicate that the direct and indirect rates between the two currencies concerned are equal.

The opportunities of making profit from arbitrage operations are necessarily much more restricted now that the world's principal exchanges are steadily functioning on the gold standard, and now

that all important foreign exchange markets are in such close communication. Moreover, the narrowing of the margin of profit necessarily means that appreciable sums must be dealt in if the return is to be worth while. Indeed, so far as London is concerned, the position at the present time seems to be that, although simple arbitrage operations are frequently capable of being performed at a profit, the restricted yet rapid movements in the rates render compound and circuitous arbitrage scarcely worth the trouble and forethought which the business involves. In this respect, however, continental centres have an advantage in the fact that they can frequently deal through London at better rates than they can obtain by dealing direct.

In spite of the comparatively large sums dealt with in arbitrage transactions, the ultimate result of such operations is to minimise rather than accentuate exchange movements. The fact that a large number of skilled operators in each of the world's financial centres are watchful for any favourable difference in the rates necessarily implies that dealings are instituted as soon as the margin becomes wide enough, while the effect of the deals is either to wipe out the margin altogether or to reduce it to unprofitable proportions. The general result is to exert a levelling influence on the exchanges, cutting off the sharp edges, so to speak, and preventing acute movements with beneficial advantage to international trade.

The Transfer of Bankers' Funds for Investment.—The transfer of bankers' floating supplies of money from one world centre to another, in order to take advantage of a possible exchange profit and/or to benefit from the best available rate of interest for short-term loans, is nowadays of such tremendous importance in world finance and plays such a vital part in the modern foreign exchange market, that detailed consideration thereof is postponed to the next chapter.

SPECULATIVE DEALINGS IN EXCHANGE

Apart from the form of speculative dealing in foreign currencies which is technically known as "*arbitrage*," there is the other type of speculative transaction which involves the purchase or the sale of foreign currency with the object of subsequently securing a profit from a rise or fall in its value. All such transactions are, of course, precisely on a par with the operations of bull and bear speculators on the stock markets and produce exchanges. "Bulls" of a foreign currency buy amounts of that currency, not to make legitimate

payments abroad, but because they expect its price to rise. On the other hand, "bears" sell foreign currency which they do not possess, in the expectation that its value will fall and that they can subsequently "buy in" at a lower price.

There is naturally little scope for profitable operations of this kind when the exchanges are relatively stable. But there are vast possibilities of both profit and loss during times of widely fluctuating rates, such as was the case during and immediately after the War. Most readers of this book will remember the unprecedented scale of post-war speculation in foreign currencies—particularly in German marks and French francs. While the mark was depreciating to such an extent that ultimately billions of paper marks could be purchased per pound sterling, thousands of foolish people in this and other countries could not resist the temptation to invest well-earned money in the purchase of the worthless paper, which was carefully locked away in the vain hope that one day its value would be restored and a fortune accrue to its faithful and hopeful possessors. Germany must have made millions out of such foolishness, but speculation in the mark was merely typical of that which went on in various other currencies, including the French franc, the peseta and the Austrian krone. People could not get rid of the idea that the values of these currencies would some day be restored, and consequently they were bought up in vast quantities to be hoarded away in the form of notes, or held in the form of balances with banks in this and other countries.

In many cases, of course, the speculators were well rewarded. This was especially true of speculation in French francs, since this currency, before it was stabilised in 1928, was as prone to appreciate violently as it was to fall rapidly in value. Speaking generally, however, there is little doubt that the fingers of the majority of post-war speculators in foreign currencies were badly burnt, and the total amount lost in this way must have reached proportions of considerable magnitude.

As a rule, the effect of speculative purchases or sales of a foreign currency is to accentuate movements which are already taking place. When the value of an unstable currency tends to rise, speculators buy for a further rise and so favourably influence the exchanges of the country of issue. Conversely, a fall in the value of an unstable currency is regarded as the signal for a further collapse, the depressing effect of sales by nervous holders being accentuated by the operations of bear speculators selling for a further fall.

When a currency is badly depreciated, even an enormous foreign demand may not have the slightest effect on its value, since the demand is satisfied, as it was in many cases after the War, merely by turning the handle of the printing press. In such circumstances, there is no immediate effect on the prevailing rates of exchange. On the other hand, enormous movements may be brought about once holders have been scared into an attempt to realise their holdings, and, in such circumstances, we may witness a world-wide race to dispose of the currency concerned, as happened in the case of the "flight from the mark" during 1923-24 and the several "flights from the franc" which followed changing political events in France and Europe.

Speculative dealings of the kind here discussed are rarely, if ever, undertaken by reputable dealers in the market. It is, of course, part of the business of every exchange dealer to "take a view," i.e., to decide for himself whether it will pay him to "go short" or "go long" of a currency, according as the indications are that the currency will either fall or rise in value. But it is always a rule with reputable dealers, and in particular with dealers in the London banks, to maintain a "level book" in all violently fluctuating currencies, and to leave the type of transaction we have described to that section of the general public which for the moment is bitten with the speculative mania.

But whatever the source or the cause of these operations, the important point to be observed here is that, at times, the speculative influence on the prevailing exchanges may be so strong as entirely to obscure what we have described as the legitimate position, and in such circumstances the course of the exchange rates may for the time being be entirely unrelated to the financial or trading position of the country concerned. This was largely the case with the majority of the exchanges during and immediately after the Great War. The combined effects of depreciation and speculation caused movements unprecedented both for their dimension and frequency. Each of the European currencies, in turn, became the butt of world-wide speculation, vast purchases and correspondingly great sales accompanying every change in the internal and external political and financial position of the country concerned.

In such circumstances, no theory could entirely explain the course of the rates of exchange. They were determined not by any considerations of relative purchasing power or balance of trade, but merely by the temporary relation between demand and supply,

depending on the whim of the speculator and on the latest rumour afloat in speculative circles.

FACTORS WHICH AFFECT THE RELATIVE PURCHASING POWER OF TWO CURRENCIES.

Since the rate of exchange between any two currencies is determined in the long run by the relation between the purchasing powers of those two currencies, it follows that any factors which bring about changes in the purchasing power of either currency must also bring about fluctuations in the rates of exchange.

Now the purchasing power or value of a currency may be regarded from two points of view: (a) the *internal* value of the currency, i.e., its purchasing power within the country by which it is issued; and (b) the *external* value of the currency, i.e., its purchasing power outside the country of issue, when it is used for purchases from and payments to other countries. Obviously, it is the external value of a currency which is the more important so far as the foreign exchanges are concerned, but that external value is in the long run mainly determined by the internal value. Moreover, while statistics such as index numbers make it possible to estimate the internal value of a currency fairly accurately, no such statistics are available in relation to the external value of that currency. The internal value of a currency is thus of vital importance in foreign exchange, from the standpoint of both theory and practice. In theory, it enables us to form some opinion as to what the external value of a currency should be, and, in practice, it affords international financiers and foreign traders some basis for the comparison of the purchasing power of their own currency with that of other nations.

Now a currency's internal value must, of course, depend on the type of standard which is in use. Some countries have a silver standard, others a standard of inconvertible paper, but most of the nations of the world now pin their faith to gold, and endeavour to ensure steadiness in the internal value of their currency by the adoption of the gold standard.

This does not mean that such countries necessarily have what is known as the *full gold standard*, i.e., a currency system in which notes are fully convertible without restriction into gold coin, both for internal and external purposes. It is sufficient if the value of the currency, whether it consists of silver or of paper, is kept on a par with the value of gold by the maintenance of either the *gold bullion standard*

or the *gold exchange standard*. The former implies that the central bank must exchange the circulating legal tender for gold *bars*, but not necessarily for gold *coin*, i.e., that gold shall be available for export but not necessarily for internal use. The gold exchange standard, as explained in Chapter XIII, implies that the value of the currency is kept constant in relation to gold by ensuring that it is freely convertible for external purposes into gold exchange.

In practice, therefore, the maintenance of a gold standard of one of these three types necessitates the maintenance of the *convertibility* of the circulating legal tender currency into gold or its equivalent.

Convertible Paper.—An excellent example of convertible paper currency was afforded by the pre-war Bank of England note. The convertible note has many advantages as currency. It is both convenient and economical, and so long as it is issued in suitable denominations, and the note is always convertible into gold on demand, it in every way fulfils the same functions as a metallic currency. The great virtue of a convertible currency is that it is capable of automatic increase or decrease according to public demand for currency. If, because of increased trade, more is required, more can be obtained from the banks; if trade slackens, the excess returns to the issuers and is cancelled. This is precisely what happens with the Bank of England note, which, in spite of the present absence of strict convertibility, has gained so strong a reputation that it is accepted everywhere as being “as good as gold.” The circulation grows with the periodic increase in the demand for currency at the turn of the half-year and the quarter, and contracts again when the demand is satisfied. It is imperative, of course, that adequate reserves of gold should be maintained in order to redeem the notes; but their use effects economy in the use of gold, and larger supplies of that metal are consequently available for export and other purposes. If these safeguards exist, there is no reason why such paper should not be accepted abroad, and, in fact, Bank of England notes are taken in other countries.

Changes in Purchasing Power under Free Gold Standards.—When a currency is maintained on the gold standard, the tendency is for both its internal and the external purchasing powers to be the same as the purchasing power of gold. If there are no restrictions on the free movement of gold, exports and imports of the metal automatically bring about the necessary equilibrium. Gold flows out of the country when its value falls too low, and flows into the country when its value becomes too high.

Between a gold standard country and any other country on the same standard, the rate of exchange tends constantly to return to the mint parity. The internal and external purchasing powers of both currencies tend to equal the purchasing power of gold, so that the purchasing power parity between the two currencies is the gold parity. Such fluctuations in the rates of exchange as do occur are confined within the gold points, i.e., the limits marking the cost of buying gold in one of the countries and selling it in another.

Let us suppose that under these conditions one of the countries issues more currency than is actually required for the purpose of satisfactorily effecting her internal business, and satisfying the need of her people for exchange media. The existing currency may consist of gold coins, or of tokens of metal or paper which are convertible into gold on demand. Clearly, if we assume no change in the volume of goods exchanged, the result will be that prices will rise and that the value of the currency (and so of gold) will fall. Credit, being based on the legal tender currency, expands. Retailers and wholesalers borrow more freely and increase their stocks of commodities. Producers of these commodities receive more in profits and wages and so are able to spend more freely. They buy both foreign products and home-trade products, including, in the latter category, services of domestic servants, teachers, builders, etc., whose income and demand for goods also is increased. The extra demand for foreign products will attract additional imports, and may restrict exports by diverting exportable goods to the home market. Imports therefore increase relative to exports, and the excess inflow of artificially cheapened goods must be paid for in some way.

Moreover, the fall in the value of the currency tends to force its purchasing power parity with other gold standard currencies beyond the export specie point. Gold therefore tends to flow out and goods to flow in. Credit contracts, and the value of the currency rises. Ultimately, equilibrium tends to be established at the point where the country has just sufficient currency for its needs and where the purchasing power parities between its currency and other gold-standard currencies tend to coincide with the mint par of exchange.

Such conditions apply between all countries which have currencies based on the gold standard. There are forces constantly at work tending to establish equilibrium both in the value of gold and in the level of prices in all the countries. The available supply of gold is distributed among the various countries until each one has just sufficient to maintain her credit system, to support adequately such

currency as she requires to effect her internal exchanges with efficiency, and to serve the need of her international financial position. The use of the common gold standard makes for a steady and uniform world price level, and deviations therefrom in any one of the subscribing countries are automatically corrected so long as gold moves without restriction.

The Effect of Restrictions on Gold Exports and the Gold Exchanges.—

But although the exchanges between gold standard countries tend to fluctuate within close limits of the mint parity, it must not be thought that such exchanges are never subject to more violent movements. One factor which may be responsible for wider fluctuations than would otherwise occur is the tendency of certain Governments to impose restrictions on the export of gold while at the same time adhering in theory to the gold standard.

In pre-war days, France and Germany afforded well-known examples of countries which acted in this way. Whilst they were at all times ready to withdraw gold from other countries, they resorted to various devices to prevent gold exports of any magnitude. In France, the Bank of France either refused to supply such gold as was required for export purposes or offered to exchange its notes for silver instead. In Germany, would-be exporters of the precious metal were made aware that their action in removing gold from the country would be viewed with disfavour by high authorities. Action of similar kind is taken to-day in these and in other countries which are regarded as being on the gold standard. At the time of writing, it is announced that Canada has placed an embargo on gold exports, although such movements are justified by her exchange position, and would doubtless be made in the absence of such interference.*

The effect of all such restrictions is, of course, that the exchange will move beyond the gold point unless the unfavourable position of the exchanges is otherwise automatically righted, as, for instance, by a change in the direction of trade or by the falling due for payment to the country concerned of a loan made by her abroad; or unless other steps are taken by the country concerned to remedy the position, as, for example, by obtaining further credit abroad or by increasing the rate of interest and so attracting foreign purchases of her currency.

Credit Factors and Gold Exchanges.—Of very great importance in

* Action of similar kind, but with the reverse effect, was taken by Germany and U.S.A. during the early months of 1928, when they placed obstacles in the way of gold *imports* in order to avoid a broadening of the basis of credit.

producing relatively wide movements of gold exchanges are disturbances of credit. In all modern communities the vast majority of daily exchanges are effected by means of credit instruments, such as Government or bank notes, cheques and bills of exchange. As a result, a vast superstructure of credit is built upon a small metallic reserve, and any variations in the volume of that credit necessarily have most widespread effects both on the trade of the nation and on its foreign exchanges.

In ordinary circumstances, the volume of credit expands or contracts fairly regularly in response to trade demands, but there are times when the expansion is so great and the subsequent contraction so violent as to cause widespread disturbance. A period of trade activity, progress and business initiative, based on the prospect of increased gain, gives rise to general feelings of buoyancy, an expansion of commercial enterprise and an extension of credit. Prices rise and speculation is encouraged. If this is continued to an unwise extent, reaction inevitably follows, bringing in its train wholesale liquidation, a period of trade depression, business uncertainty and falling prices.

It is now the generally accepted aim of all established Governments and central banks so to regulate the volume of credit as to minimise such disturbances and, so far as it is possible, ensure steady internal prices with reasonable stability of the foreign exchange rates. The basis of central bank policy throughout the world is the prevention of a cycle of excessive buoyancy and marked depression, and the maintenance of steady commercial and industrial growth without serious set-backs. Accordingly, when credit shows a tendency to expand beyond the limits of safety, steps are taken to curb speculation, as, for example, by raising the rate of interest at which funds may be borrowed for speculative use. Conversely, when business conditions incline to stagnate, an endeavour is made to promote legitimate trade enterprise by lowering the rate of interest and thereby encouraging the use of borrowed money in healthy speculative operations.

Even in the best regulated communities, however, troubles are bound to arise. From time to time events occur which have the effect of causing a violent and unexpected contraction of credit. The immediate cause of the reaction may be a single event, such as a great flood, the failure of a harvest, the outbreak of war, a strike in an important industry or the failure of a great financial house or banking firm. Or there may be a series or sequence of events or disturbing causes which, although individually of relative unim-

portance, have a cumulative depressive effect on business activity. In any such case, the disturbing factor or factors lead to a contraction of credit, a fall in prices and a dislocation of internal business. Foreign trade is necessarily discouraged, and fluctuations in the foreign exchanges follow the upheaval in trade, the withdrawal of foreign balances and the change in the purchasing power parity brought about by the variations in internal prices. The tendency is to unfavourable exchanges, and, if gold can be withdrawn for export, it may leave the country in considerable quantities before the position is finally adjusted.

Conditions of this kind have arisen on several occasions during the past history of Britain, and only at the cost of heavy inroads into her gold reserves has she been able to maintain her rigid adherence to the principle of the gold standard and of a free gold market. Other countries, when faced with similar conditions, have not been so willing to part with their gold holdings, and thus, in spite of their theoretical maintenance of the gold standard, their exchanges have fluctuated markedly beyond the limits imposed by the export and import specie points

Inconvertible Currencies.—Uncertainty in exchange is much accentuated when one or both of the two currencies concerned is depreciated through excessive issues of inconvertible tokens of metal or paper.

The great drawback to an inconvertible paper currency is that, while its quantity can be increased without limit, it cannot be *contracted* in the same way as a convertible note issue. Once such paper is put into circulation, it remains in circulation until such time as the Government is in a position to redeem it, and decides so to do. Theoretically, if the amount is strictly limited, and the issue is regulated according to the demands of trade, it is possible that with proper precautions an inconvertible note issue might perform the usual functions of an efficient internal currency. But the history of inconvertible paper issues throughout the world is not encouraging. For external payments it is obviously useless, since foreigners will not accept a medium of exchange which cannot be used in their own country; and, as gold cannot be obtained by cashing the notes, specie for export purposes must be purchased in the open market like any other commodity, and its value as measured in notes will always stand at a premium.

Inconvertible paper is always liable to be, and, in fact, almost always is, issued in excess. A Government issue of inconvertible currency is in the nature of a forced internal loan, costing little or

nothing to raise, and carrying no interest or obligation to repay the principal. The temptation to over-issue is therefore almost irresistible, and in times of financial stress ministers are glad to avail themselves of a method which, merely by setting the printing press to work, places large funds at their disposal. Appetite grows by what it feeds on, and every additional issue still further depreciates the national currency. The prices of commodities rise, including those of the precious metals. Gold and silver coins are melted down, hoarded, or are used to make payments abroad, and thus disappear from circulation. The paper currency becomes so discredited that the people will accept it only under compulsion.

Such a state of affairs will result from the outbreak of war, or the occurrence of other national disasters, such as widespread crop failures, or extensive floods. Funds must be raised in some way, and if exports fall off, gold stocks are generally used for foreign payments. There are, however, other reasons for resorting to an inconvertible currency. A large expansion in trade may cause enormous demands for currency, and it may be impossible to fill the gap except by a paper issue. Increasing trade calls for increased supplies of currency to meet the augmented demand for means of payment. As soon, however, as contraction in trade occurs, the currency becomes redundant, for the excess over the new requirements cannot immediately be absorbed by the State and cancelled. The deflation of an inflated inconvertible currency is a most difficult operation, and can only be effected gradually and by rigid economy over a series of years. (See page 343.)

The internal value of such a currency is determined mainly by its quantity in relation to the number of internal exchanges to be effected. If inflation is persisted in, as it was in many European countries during and after the Great War, the inevitable result must be that the value of the currency falls with every increase in its quantity, while the prices of goods rise rapidly and are subject to frequent changes due to the attempts of traders to keep pace with the fluctuating value of the circulating media.

The Purchasing Power Parity and Inconvertible Currencies.—

The variations in the internal value of the currency will, of course, be indicated by the published index numbers of internal prices, and these index numbers will give foreigners a fair idea of the value of the currency to them as a means of purchasing goods or of paying debts in the country by which the currency is issued. The rate of exchange between the inflated currency and a gold

standard currency will tend to the point which marks equality between the relative purchasing powers of the two currencies. But, since the purchasing power of the inflated currency will vary each time its quantity is increased, it necessarily follows that the purchasing power parity will also move and engender still further fluctuations in the prevailing rates of exchange. Moreover, the position will be rendered even more complicated and unstable by the anticipatory dealings of speculators "for the fall", and, on occasion, "for the rise".

Movements of the exchanges are violent enough between an inflated currency and a gold standard currency. But the exchange position is still more complicated and uncertain when *both* currencies are depreciated. The influences affecting the relative purchasing power parity between the currencies then come from two directions; exchange fluctuations are brought about by every change in the value of *either* currency following on further issues of inconvertible paper. If we assume that both countries start from the position of a common gold standard, then we may say that the purchasing power parity between their currencies will be determined *by the relative degree to which those currencies are inflated*.

Suppose that under a common gold standard, the currency of country A exchanges for that of country B at the rate of \$5 = £1, and that both countries resort to a long period of inflation until ultimately A's currency is inflated twofold, while B's is inflated fourfold, i.e., the value of A's currency is lowered to one-half of its former value, i.e., by 50 %, while the value of B's is lowered to one-quarter of its former value, i.e., by 75 %. The degrees of inflation in the two countries are therefore in the proportion of 1 : 2, and the new purchasing power parity will thus be one-half of what it was before, i.e., \$2.5 = £1.

This may be proved by the Chain Rule, as follows:—

$$\begin{aligned}
 & \text{? \$ of A's currency now} = \text{£1 of B's currency now;} \\
 & \text{If £1 of B's currency now} = \frac{1}{4} \text{ of B's £1 before inflation;} \\
 & \text{£1 of B's currency before inflation} = \$5 \text{ of A's currency before inflation;} \\
 & \$5 \text{ of A's currency before inflation} = \$10 \text{ of A's currency now;} \\
 & \qquad \qquad \qquad = \frac{5 \times 10 \times \frac{1}{4}}{5} = \$2.5
 \end{aligned}$$

The extent to which a paper currency is depreciated is shown, approximately, by the premium on gold, which rises higher and higher with each new currency issue. If, for example, £200 in notes will exchange for no more than £100 in gold, the premium on gold is

said to be 100 %, and paper is reckoned to be at a discount of 50 %. The extent of the premium on gold will usually indicate how far the exchange rate has diverged from the Mint Par or normal exchange value, but as gold is often unobtainable in countries burdened by a depreciated paper currency, the values of the currencies of other nations measured simply and solely by their relative purchasing power as compared with that of the inconvertible paper money.

Credit Conditions and Depreciated Inconvertible Currencies.—The great disadvantage of an inconvertible currency so far as the foreign exchanges are concerned is that the difficulties do not end with the continual fluctuations in the rates of exchange which necessarily follow changes in its purchasing power. There are other repercussive and cumulative effects.

For one thing, the frequent variations in the currency's internal value cause widespread uncertainty in business circles. They disturb trade and make future contracts well-nigh impossible. To protect themselves, exchange dealers charge high rates in order to cover the risk of exchanging a currency of uncertain value, with the result that transactions for legitimate trading customers are not conducted on the ordinary basis of a reasonable profit. Moreover, the tendency is for legitimate traders to shun business with a country whose currency is depreciated and subject to constant fluctuation. They prefer to do no business at all than to do business which partakes of the nature of absolute speculation, and which, instead of offering some certainty of reasonable profit, is quite likely to cause serious loss. A country with a currency of this kind can buy goods abroad only if her traders undertake to make payment either in the currency of the selling country or in a widely-accepted gold currency, such as the dollar. But, in any case, the ultimate result is that those traders are compelled to bear the dual burden of difficulty arising from internal price disorganisation and external exchange fluctuation.

Sooner or later, of course, a remedy must be found, for, as long as conditions of this kind persist, the country concerned cannot hope to maintain a position of any great importance among the trading nations of the world. Unless steps are taken to establish her currency on a proper basis, the national credit will be damaged to such an extent that she may experience great difficulty not only in re-establishing her trading position, but also in obtaining from other nations that financial co-operation in the form of loans and credits which is almost always necessary in such cases. The harmful effect of a redundant internal currency on foreign trade and on the

exchanges becomes well-nigh disastrous if it is allowed to continue to the point where the national credit becomes badly impaired. Nowadays, credit, the expression of mutual confidence between man and man, and between one nation and another, plays a most conspicuous rôle in international trade and exchange. Everything which tends to promote that confidence expands, and everything which tends to impair that confidence restricts, those business operations which, in the modern world, are almost entirely dependent on credit. For these reasons the effects of a disorganised currency and of a badly-depreciated exchange tend to be cumulative, and the credit of the country concerned sinks lower and lower until steps are taken to put its house in order.

A better illustration of the importance of credit from the point of view of international trade cannot be adduced than the case of Russia. Following the Revolution and the abolition of Czardom, the Bolshevik Government repudiated Russia's foreign debts, and, at a blow, virtually destroyed her foreign credit. Her trade with other countries came practically to an end, and several of those countries demonstrated their intense disapproval of her action by refusing diplomatic recognition of the newly-constituted Soviet Republic.

It should be fairly obvious, too, that the various factors to which we have already referred as causing sudden disturbances of credit in gold standard countries must have far more disastrous consequences where a depreciated inconvertible currency rules. Where the currency is already depreciated and subject to frequent fluctuation, the whole credit mechanism not only becomes extremely sensitive to disturbing events and to changes in public sentiment at home and abroad, but also recoils far more extensively from such influences. Moreover, a country whose currency is in such a condition takes a far longer time to recuperate from a period of depression, and has to make far greater sacrifices to do so, than a country which is in the more fortunate position of having a reasonably stable basis of internal and external exchange.

CHAPTER IX

SHORT TERM INVESTMENT AND THE RATES OF EXCHANGE: FORWARD EXCHANGE

ONE of the most potent factors causing movements in present-day rates of exchange between the leading countries of the world is the transfer of floating balances for short term investment. The bulk of these balances represent surplus funds in the hands of banks and financial houses which partake of the nature of banks. Occasionally, the Foreign Exchange Market has to cope with large sums, seeking profitable investment abroad, belonging to private individuals or firms. But, as a rule, private balances do not migrate at all readily. They tend to be retained in the centre or centres where they will be ultimately required. On the other hand, the surplus funds in the hands of the banks represent their stock-in-trade. The large exchange banks, especially, must maintain considerable balances freely available for rapid transfer from one centre to another according to the need of their customers and correspondents. Generally speaking, these balances can be held in any important centre which maintains the gold standard, since the removal of the funds from any of these centres involves no exchange risk other than the fractional movements within the gold points. Having thus a fairly free choice as to where they will hold their foreign balances, the banks are naturally quick to move them to whichever centre offers the greatest possibilities of return in the form of interest or exchange profit.

The total of the balances which are thus capable of flowing freely from one country to another is extremely large. At the end of 1926, foreign liquid balances to the value of more than £450,000,000 were estimated by the U. S. Dept. of Commerce to be held in the United States alone, and there is little doubt that very considerable sums are held in London and other centres, although no statistics thereof are available. Obviously, the magnitude of these balances is in itself sufficient to ensure that any important change in their location must have pronounced effects on the prevailing rates of exchange. But these

effects do not depend on magnitude alone. There are certain other important factors.

First, the development of the modern methods of transacting exchange business by telephone, telegraph and cable implies that huge sums can be moved from one centre to another with great ease and rapidity. Secondly, the necessity of keeping these surplus balances liquid yet remunerative means that bankers are eager to seize any opportunity of employing them to greater profit on a favourable change in the interest level in one of the world's financial centres. The third important point is that these funds are concentrated in the hands of the very people, i.e., the bankers, who are not only specially qualified to secure the most remunerative use for them, but have also the best possible exchange facilities at their service for effecting the necessary transfers from one country to another. Finally, the movement of these balances in response to action taken by the world's central banks has, to a very great extent, taken the place of movements of gold in bringing about that equilibrium necessary to the maintenance of stable exchanges and stable currencies.

Differences Between Pre-War and Post-War Practice.—In pre-war days, the transfer of surplus funds by bankers was almost entirely effected by the purchase of first-class long bills payable in the foreign centre where it was desired to hold the funds. As a result, the rates of exchange, and in particular those between the chief European centres, were very considerably affected by changes in the investment demand of bankers for long bills of exchange. This influence was especially marked in regard to Continental rates on London, for Continental bankers preferred, other things being equal, to hold part of their funds in sterling bills, although this preference naturally varied from time to time according to the rate of interest which could be obtained on funds invested in London as compared with the rate obtainable elsewhere. Hence, other things being equal, a rise or fall in the London rate of discount could be depended upon with a fair degree of safety to bring about a change in the proportion of London bills held, purchased or sold by bankers abroad. The effect of such a change immediately made itself felt on the prevailing rates of exchange, and full advantage of this fact was frequently taken by the Bank of England to influence the exchanges in favour of this country.

At the present time a large proportion of the floating balances in the hands of the banks are transferred from one centre to another by other means, and for investment in other forms of security. Nevertheless, the investment demand for foreign bills of exchange is still

of such importance as to justify a detailed consideration of its objects and ultimate effects on the prevailing exchange rates.

The Transfer of Bankers' Funds by Investment in Bills.—Bankers in all countries have long recognised that bills of exchange, chosen discriminately, are an excellent form of investment and banking security, for the following reasons:—

- (1) Bills automatically turn into cash as they fall due.
- (2) Payment is secured by acceptor, drawer, and indorsers, all of whom are individually liable for punctual payment.
- (3) Bills are easily saleable or discountable owing to their negotiability and their use as a means of settling indebtedness. London bankers do not, however, discount bills once acquired.
- (4) Money invested in bills is not locked up for long periods. A banker desires to keep his assets as liquid as possible.
- (5) Bills often yield profits in addition to the interest reckoned to be earned, because (a) a favourable change occurs in the market rate of discount at the foreign centre on which the bills are drawn, or (b) a favourable change occurs in the rate of exchange on that centre.

A certain proportion of the funds of all banks is therefore invested in long bills of exchange, many of which are obtained by discounting them for customers. In pre-war days, London bankers confined themselves solely to London paper, and did not favour foreign bills as investments, but it has long been the practice of Continental bankers to invest largely in foreign, as well as home acceptances. Indeed, the constitution of several continental central banks *requires* them to hold a certain percentage of their assets in first-class bills of exchange on gold standard countries, with the result that their portfolios usually contain bills of various maturities drawn on the principal European centres, and, in particular, on London.

A further important difference between London and Continental practice is that whereas bankers in London almost always retain bills discounted by them until maturity, being content with the steady rate of interest earned on their funds, Continental bankers hold their bills only so long as they find it profitable to do so. Their bills are purchased, held or sold from time to time as the exigencies of securing a profit, or averting a loss, may dictate. Consequently, what is known as “the *Continental* Bankers’ investment demand for bills” necessarily has an important influence on the rates of exchange, and

especially on the rates of exchange between Continental centres and London.

Now the first-class foreign bills of exchange required by bankers for investment may usually be purchased in sufficient quantity in the investing bank's own country. Many of them will be brought in for sale and discount by the bank's own customers, but, if this source is inadequate, others may be obtained from the local bill market. Failing this source, also, the banker who is particularly anxious to obtain bills payable in another centre may instruct his agents in that centre to purchase them locally for him. Bankers in Paris, for example, may instruct their London agents to obtain such bills from bill brokers or discount houses in the City, the cost of the bills being debited to the Paris banker's sterling current account. Alternatively, the banker in Paris may have sterling bills drawn to meet his requirements by the Paris branch or agency of a London bank.

One other point may be noticed. In pre-war days the bills thus purchased by the banks for investment purposes were, almost without exception, first-class *bills of exchange*, drawn or accepted by banks of known repute. Conditions arising from the War led to a comparative scarcity of such bills, and their place on the Money Markets was largely taken by various forms of Government obligation, such as the Treasury bills of our own country, and *Bons du Trésor Public* of France. But foreign Government securities of this kind cannot, of course, be held in place of bills of exchange where such bills must be held under the bank's constitution, and it is for this reason that a higher price is sometimes bid on the London market for first-class bank bills than for Treasury bills, e.g., $5\frac{7}{32}$ % as against $5\frac{1}{4}$ %. Moreover, slightly different circumstances affect investments of this type, so for the moment we will confine our attention to the investment demand of bankers for foreign bills of exchange.

London Bills Preferred.—As far as possible, continental bankers will invest their funds in bills drawn on those centres where discount rates are highest, and naturally so, because the bankers' profit and interest depends on the rate of discount ruling at the place where the bill is payable. If a Paris banker buys a bill for £1,000 on London, he deducts discount at the London market rate, because that is the rate he must pay if he sends the bill for sale, and the higher this rate, the less he pays for his bill. If the discount rate in Amsterdam was higher than that in London, the Paris banker would choose Amsterdam bills, because they would cost him less and yield a larger return. Changes in the discount rates at various centres therefore

cause proportional changes in Continental bankers' holdings of bills on those centres. A rise in the London market rate above the rates ruling in Berlin, Paris, etc., will cause bankers in those places to invest their funds in London bills. The bankers abroad require little inducement to put their money into London bills, provided it pays them to do so, and in fact, they prefer such bills because:—

- (a) The holder of London bills can normally demand gold from London if he requires it, by sending his bills across for sale or discount.
- (b) The standing of London financial houses and banks is so well known that London bills are considered safe, and are freely acceptable anywhere.
- (c) London bills usually yield the best return

The first of these reasons is explained by the unrivalled position long held by London as the only open and free gold market. In normal times the holder of a London bill can *always* demand gold in exchange, and although this position was considerably modified as a result of the War, London bills are still regarded abroad as being “as good as gold.” For a variety of reasons, no other financial centre maintains such an open position as London, and it is therefore necessary for those bankers and others, who have control and custody of the gold reserve of our nation, to exercise great care and unfailing diligence to prevent a heavy depletion of our stock. The best and most reliable method of protection is the raising of the discount rate, which checks the outflow and encourages the return of gold that has left us, by influencing the exchanges in our favour.

A detailed consideration of the mechanism of the discount rate is deferred to Chapter XII, but here we may note that, owing to its use as a line of defence of our gold reserves, the discount rate in London is frequently moved in an upward direction, and is also changed far more often than the rates in other centres, such as Paris, Berlin, and Amsterdam, where the necessity for protecting the gold reserve by movements in the rates of discount is not so marked.

This, then, explains the third of the reasons, given above, why a London bill is generally preferred to a Continental bill. The former is usually cheaper to buy, and will ordinarily return a higher rate of interest to the buyer, and give him a greater margin of likely profit. Furthermore, the Continental banker who has purchased London bills because a high rate of discount rendered them temporarily cheap, may quite confidently anticipate that the London discount rate is more

likely to fall than to rise, thus affording him the prospect of a quick profit on his investment.

The effect of the investment demand is to lessen the supply of London bills on the foreign markets, and this naturally influences the rate of exchange in favour of this country. As bankers are always anxious to use their money to the best advantage, it is fairly certain that, in normal times, a rise in London discount rates will be followed by a rise of the exchange in our favour. This investment demand will, however, arise only if bankers abroad can foresee a reasonable chance of profit, and they are therefore influenced by the general state of credit here and abroad, by the financial outlook and by other important factors. However high the market rate here, London bills would not be bought if a great crisis in Britain was impending, or if we were suddenly plunged into war with another great nation.

The investment demand will be greater if London bills are already cheap, than it will be if they are dear. A rise in the discount rate makes these bills still cheaper, and therefore increases the margin of profit which is likely to be made when they become dear again. Cheap bills are more likely to rise in price than to fall, and high rates of discount are more likely to fall than to rise still higher. These factors are naturally very important to bankers, who never know when a sudden demand may be made on them for cash, which may compel them to realise their bills quickly.

In the majority of cases, however, bills are purchased and held until they mature, when they are sent for collection and remittance of proceeds. The bankers then obtain a steady rate of interest on their money, according to the rate of discount charged by them. It will be evident, however, that as changes in the discount rates frequently offer opportunities for the bankers to make immediate profits by realising the bills which they hold, they are not slow to take advantage of this fact if the discount rate should suddenly fall away. A Paris banker who has bought London 3 months' bills on the basis of a 4 % rate, can make an easy profit by realising them if the rate in London drops to 3 %. We are therefore led to another factor of great importance. As soon as the London rate of discount falls appreciably, so as to show continental holders of London bills a fair profit, they immediately press these London bills for sale. The increased supply causes prices to fall, and this has the usual effect of influencing the exchanges against this country.

Illustrations.—We are now in a position to trace in detail the effect of changes in the discount rate, or in the rates of exchange,

on the profits of a foreign banker who purchases his bills in foreign currency per £ sterling. Let us take it that on a certain day the rate of exchange in Paris for sight drafts on London is Fcs. 124·10 = £1, and discount rate both in Paris and in London is 4 %. Neglecting brokerage, bill stamp, etc.:—

The rate for 3 months' bills on London is therefore:—

Sight rate	...	...	...	...	Fcs. 124·10
Less 3 mos. @ 4 %	...	...	...	...	1·241
					<hr/>
Long rate on London	...	...	...	...	Fcs. 122·859

Now if the London market rate rises to 5 %, the 3 months' rate becomes:—

Sight rate	...	...	...	...	Fcs. 124·10
Less 3 mos. @ 5 %	...	...	...	...	1·55125
					<hr/>
Long rate on London	...	...	...	...	Fcs. 122·54875

Every £1 due in London in 3 months' time, as represented by a bill, is thus about 30 centimes cheaper to buy, but the demand for bills on London will tend to lessen this margin by sending up the rate of exchange. If the high rate of discount continues, the exchange may gradually rise until the margin is practically absorbed, because the continued demand for bills will continually move up prices. Suppose that when the sight rate has moved to Fcs. 124·35 = £1, a banker in Paris purchases a 3 months' bill on London for £1,000. This will cost:—

Sight rate	...	...	...	...	124·35
3 mos. @ 5 %	...	...	...	...	1·554375
					<hr/>
Long rate	...	...	...	...	122·795625
Cost of Bill	...	...	...	...	Fcs. 122,795·625

Two courses are then open to him:—

- (a) He may retain the bill until maturity, when he will obtain payment from London by a sight draft on another Paris house for the equivalent of £1,000, or by credit to his sterling current account with his London agent, or by remittance of gold from London, if it is required and can be obtained. Such a course would be followed by a banker who is content to have a steady calculable return on the money he invests,

but the continental banker is far more likely to seize on a chance of extra profit.

- (b) He may sell the bill before it is due for what it will fetch in Paris, or any other centre where conditions are favourable. He may do this because he requires funds at once, or because he sees a chance of obtaining an immediate profit by selling the bill in Paris or elsewhere.

In the case of a forced sale, the banker may make either a profit or a loss on the transaction, but as the conditions which result in a loss are just the reverse of those which secure profit, it will be enough if we chiefly consider how profit may arise on the sale of a bill before its due date. Profit arises from two chief sources.—

(a) A favourable change in the London market rate of discount.

(b) A favourable change in the Paris exchange rate on London.

We will neglect for the moment the possibility of profit by sale of the sterling proceeds of such a bill through any other centre when the state of the exchanges makes such an operation favourable, as the theory is the same.

If, then, the banker wishes to obtain a clear 5 % on his money, he retains the bill until it is due, when he sells it at the rate for sight drafts on London. The banker endeavours to sell the bill at a sight rate as near as possible to that ruling when he purchased, i.e., at Fcs. 124·35 = £1, in which case he obtains a total of Fcs. 124,350.

He may, however, find that in a day or two the London rate of discount had fallen to 4 %, and he may decide to obtain an immediate profit by selling his bill. He then fares as follows:—

£1,000 on London @ sight rate,	Fcs. 124·35...	Fcs 124,350
Less 3 mos. interest @ 4 %	... ..	1,243·5
Proceeds	... ..	Fcs. 123,106·5

This shows him a profit of Fcs. 310·875, on his outlay of Fcs. 122,795·625, or about $\frac{1}{4}$ %.

Now, if the London rate had risen to, say, 6 %, a forced sale would cause a loss, but the wise banker well knows that a rate of 5 % in London is a high one, and is much more likely to *fall* than to *rise*. He therefore prefers to buy London bills when the London rate is high, i.e., when the bills are *cheap*, than when the rate is low and bills are dear. In the latter case there is much more chance of a possible loss, if he is suddenly compelled to realise.

The Continental banker has, however, to take into consideration other factors besides the rates of discount. In deciding how he will invest his funds, he must consider the probable trend of the exchanges—whether they are likely to move for or against him—as an adverse movement may carry away all his profit, or, indeed, involve him in serious loss. If, for example, the London sight exchange had fallen to Fcs. 123·95 when the banker in the case last considered was ready to sell his 3 months' bill at its maturity, he would realise only Fcs. 123,950 for a bill which had cost him Fcs. 122,795·625, and so realise less than 4 % per annum on his money.

An adverse movement of the exchange might also completely wipe out any profit which a banker could otherwise have made as a result of a fall in the discount rate. This will be quite clear if we suppose that in the last example, a fall in the London discount rate to 4 % two or three days after the original purchase was coincident with a drop in the sight exchange to Fcs. 123·95 = £1. The banker could then only realise at a loss, and he would naturally hold the bill unless he were forced to realise, e g. :—

£1,000 on London @ sight rate, Fcs. 123·95...	Fcs. 123,950
Less, say, 3 mos. interest @ 4 %	... .. 1,239·5
Proceeds	... .. Fcs. 122,710·5

As the fall in the discount rate would lessen the demand for London bills, it is probable that the exchange would relapse still further and lead to greater loss if the banker was slow to realise. The fluctuations would not be of great concern to a banker who was in a position to wait until a favourable rate came along, but it is the fact that a banker may at any time be called upon for extra funds and be compelled to realise suddenly, which causes him to make a careful estimate of the future course of the exchanges.

Summary.—The foregoing explanation is sufficiently important to deserve summarizing :

- (1) Bankers in all countries invest a certain proportion of their funds in bills of exchange.
- (2) Continental bankers prefer London bills because:—
 - (a) Gold can be demanded in exchange, if necessary.
 - (b) London bills are generally safe and freely saleable.
 - (c) The return on London bills is normally higher than on others.

- (3) Bills are purchased for two purposes:—
- (a) To hold till maturity and earn a steady interest on money invested.
 - (b) To sell at the first favourable opportunity at increased prices.
- (4) Profits are made:—
- (a) When rates of discount fall at the place where the bills are payable, thereby making the bills dear, and saleable at a profit.
 - (b) When rates of exchange move in favour of the country wherein the bill is payable, profits are made by selling bills at the new rate.
- (5) If the London discount rate rises above the general Continental level, or if Continental rates fall below the London rate, then London bills will normally be purchased for investment.
- (6) If reverse movements take place in the rates, London bills will usually be sold, and Continental bills be purchased.
- (7) A rising discount rate in London therefore causes an extra demand for bills, and has a favourable influence on the exchanges. A falling discount rate in London has the reverse effect.
- (8) The investment demand varies greatly in intensity, according to the state of credit, the political outlook, trade conditions, and the probable movements of the exchanges and discount rates in London and abroad.

Other Methods of Employing Surplus Balances.—Conditions arising from the Great War brought about notable changes in the method adopted by bankers and others for investing their surplus funds in foreign centres. The great disturbance of foreign trade necessarily caused a great falling off in the volume of bills created for international settlement, and, combined with the wide fluctuations in the rates of exchange and the world-wide failure of credit, rendered investment in foreign bills far more hazardous than it had been before. Moreover, the vast increase in the volume of foreign exchange operations conducted by the banks made essential the maintenance of much larger floating balances in foreign currencies to meet the requirements of customers. These balances must be kept absolutely liquid and as secure as is humanly possible, while they must, at the same time,

be used so as to obtain the highest available return. Hence bankers who were unable to obtain sufficient first-class long bills for their needs naturally looked elsewhere for means of profitably employing their funds. Fortunately, adequate opportunities were opened up by the great developments in international finance.

During the Great War, international monetary transfers on an unprecedented scale were necessary to pay for the vast supplies of munitions and raw materials passing between the various countries of the world. In the years immediately after the War, operations of considerable magnitude were occasioned by the great post-war trade boom, and by the payments made on account of war debts and reparations. An enormous impetus was thus given to the development of financial internationalism. The world's chief financial centres were closely linked by a network of telephones, telegraphs and cables, the foreign exchange markets were rapidly expanded to cope with an ever-increasing volume of business, while the reciprocal agency arrangements entered into between the world's leading banks brought the various financial agencies into the closest relationship. Nowadays most of the large banks in this and other countries conduct current accounts with agents and correspondents in foreign centres, and much of the business of arbitrage and investment consists of the mutual advancing and crediting of balances on current and deposit account, interest being charged and allowed, as the case may be, at the rates ruling in the centre concerned.

One result of these conditions is that banks throughout the world employ balances of enormous aggregate amount in the chief financial centres, and especially in London and New York, merely by placing the funds on deposit with their agents. Advantage is also taken of the services of agents to employ surplus funds in other directions. Foreign financial institutions make use of their London branches and agents to purchase British Treasury Bills and Exchequer Bonds, which are now much favoured abroad for temporary investment. Considerable sums find their way into bonds and other forms of obligation issued by municipalities and local authorities both here and in other countries, while other sums of appreciable magnitude are employed, through the intermediary of agents, at call or short notice on the world's leading stock markets.

The essential in all such cases is speed of operation. Profits are calculated to a very fine margin, and the favourable position which makes such profits possible is soon narrowed by the competition of many dealers to benefit from it. For these reasons, modern opera-

tions of this type are invariably effected by telegraphic transfer. The New York banker who wishes to invest in British Treasury Bills may purchase sterling T.T. to the requisite amount, and instruct his London agent to invest the proceeds as directed. Alternatively, the telegraphic message may instruct the agent to deduct the requisite funds from an existing deposit, or may even request him to grant an overdraft to the amount required for a specified period.

Similarly, a London banker who wishes to take advantage of a high interest rate in a foreign centre, say, in Vienna or Rio, may telegraph his agent in the centre concerned to sell T.T. on him to a stipulated amount and to place the proceeds on fixed deposit for a given period, say, three or six months. The London banker pays out sterling against the T.T. on demand, and the effect is that part of his funds stand on deposit in Vienna or Rio for a specified time instead of lying idle or being employed in London at less profit.

Clearly, this close relationship between the banks in the various centres must be attended by great advantages, and has opened up many previously untried avenues of profit. But the question arises: How is the banker who resorts to operations such as those described in the last paragraph to safeguard himself against the likelihood that the rate of exchange may have moved against him by the time he wishes to bring home his funds? How can a New York banker who has invested, say, \$50,000 in three months' Treasury Bills, ensure that he can reconvert his sterling into dollars, when the bills mature, without losing all or more than he hoped to gain in the way of interest? Even when the full gold standard is in operation between London and New York, movements of the rate of exchange may take place between the import and export gold points, i.e., approximately 4·89 and 4·85 - a total movement of ·04 c in the rate. This is equivalent to an interest difference of ·82 % per annum, and clearly involves a far greater risk than a banker can afford to take in normal circumstances on an ordinary business operation.

The Application of Forward Exchange.—Fortunately for those who undertake these operations, the risk of loss from an adverse movement in the current rate of exchange can be entirely eliminated by taking advantage of the present widely-developed forward exchange facilities and resorting to what is technically known as "*covering forward*." A dealer who has invested funds in a foreign centre for a specified period by the purchase of spot currency of that centre safeguards himself against a future loss on the exchange by selling the same quantity of that currency forward, i.e., deliverable by him at the

expiration of the period. The New York banker in the case instanced above, who invests in three months' British Treasury bills by purchasing sterling T.T., covers himself by selling the anticipated proceeds of the bills three months' forward. By so doing, he transfers his funds to London in the secure knowledge that he will not lose anything on their ultimate reconversion into his own currency. Thus the great post-war development of forward exchange business opened up a new mode of short-term investment, combining the advantages of speed, ease of operation and freedom from risk.

The Development of the Forward Market.—Originally, forward exchange facilities were provided by the banks solely to enable their customers to eliminate some part of the risks involved in trading with countries having frequently fluctuating exchanges. In pre-war days, when fluctuations in the rates of exchange were confined within very narrow limits, there was little risk either to banker or merchant in ordinary exchange operations. As we have seen, the British merchant conducted most of his business on a sterling basis, and was content to allow the foreigner to undertake such small exchange risks as existed, whilst the latter was equally satisfied with the arrangement, for by judicious handling of the operations he frequently made an extra profit. Consequently, such limited forward facilities as existed were practically confined to fluctuating exchanges, in particular, those of South America and of the silver-using countries.

The Great War brought into being vastly different conditions. Many exchanges fluctuated with a total disregard of economic factors; they were influenced by every change in international politics, and by every whim of the speculator in foreign currencies. Hence business men in this and other countries were compelled to give far more attention to international exchange. They had to recognise that a movement in an existing rate might easily wipe out a fair commercial profit, and our own traders, more especially, were forced to assume part of the exchange risks which they had formerly left almost entirely to the foreigner. The merchants naturally turned to the banks for assistance, and, as a result, the machinery of forward exchange was considerably extended until it embraced all important currencies. International trade was thus relieved of some of its difficulties, and the risks which had become inseparable from exchange operations were transferred to the shoulders of the banks. Practical illustrations of the benefit of forward exchange to merchants' trading overseas are given in Chapter XV, wherein are discussed present-day methods of safeguarding foreign trade.

Covering Forward Operations.—It is obviously no part of a bankers' business to assume risks which should properly be borne by his customers. No banker can possibly sell a customer pesetas, three months' forward, at 32 per £1 and himself run the risk of having to buy them in at 25 per £1 when the times comes to deliver. Nor can a banker undertake to buy Japanese yen from a customer, three months' forward, at 2s. 1d., and run the risk of their being worth only 1s. 6d. when handed over by the customer at the expiration of the agreed period. Consequently, it has always been the practice for banks to cover or protect themselves in respect of all ordinary forward operations by one of several methods which are available. Theoretically there are four possible methods which may be adopted, for example, by a banker who has *sold* foreign currency forward. He may:

- (1) Buy long bills in the foreign currency concerned, maturing at approximately the same time as the forward payment is due to be made by him; *or*
- (2) Buy in his own market a forward T.T. or M.T. in the foreign currency, deliverable on the same date as the one he has sold, i.e., cover his own forward sale by finding someone who has the same currency to sell forward; *or*
- (3) Arrange by wire or cable with his agent in the foreign centre to sell him the requisite currency forward; *or*
- (4) Lay down the requisite funds in the foreign centre at once by effecting a sight transfer at the spot exchange, so that the difference between the rate at which this operation is effected and the rate at which he has sold forward represents his profit on the transaction, subject to any gain or loss of interest occasioned by the transfer of his funds.

Before the forward exchange market had developed to its present wide extent, there was no recognised available means for immediately covering a forward sale by a forward purchase, and *vice versa*. It was a matter of practical impossibility to cover by either of the second or third methods enumerated, since this implied the finding of someone who wished to buy or sell forward to precisely the same extent as the dealer concerned wished to sell or buy the same currency. Some forward sales were, of course, covered by the first method, i.e., the purchase of long bills maturing at approximately the same date, but there were obvious practical difficulties in the way of doing this. Consequently, in the great majority of cases, banks eliminated all risk of loss by covering forward transactions effected for customers

by immediate spot deals. A sale of francs three months' forward was covered by a purchase of spot francs to the same amount. On the other hand, a forward purchase of francs would be covered by a spot sale, and so on.

Relative Interest the Original Basis of Forward Rates.—Now the obvious result of covering forward transactions by spot sales or purchases is to involve an immediate transfer of the bank's funds from one centre to another. When the dealer *buys* spot francs his sterling balance in London is depleted, while the francs go to his credit in Paris. Naturally, the bank would view such a movement with favour if the francs in Paris earned more interest than could be obtained by employing sterling in London, and would therefore be pleased to undertake such forward business for its customers.

But every dealer would be similarly placed, and, ultimately, the force of competition for the business would compel the banks to pass on to their customers in the forward quotation some part at least of the benefit to be derived by transferring funds from London to Paris. The London forward rate on Paris would therefore be quoted at a *discount*, which would represent the amount which English banks would have to *give away* in order to earn the higher interest rates in Paris. If interest in Paris is 2 % higher than it is in London, the difference represents approximately 20 centimes per month on a rate of 124 francs, and this is the *maximum* amount per £1 which the London dealer can give away without incurring loss. Hence, the one month forward rate in such circumstances could not be more than 124·20 francs per £1.

On the other hand, the *selling* of spot francs to cover a forward purchase would result either in the depletion of a balance standing to the bank's credit in Paris, or it would necessitate an overdraft with its Paris agent. If the bank was maintaining a balance in Paris because of higher rates of interest in that centre, it would naturally view with disfavour a transfer of part or all of its balances to London. Hence, forward business would be accepted only on the understanding that the customer made good the loss occasioned by moving the funds. In general, however, the bank would not give its customers the benefit of the fact that it had funds available in Paris. On the contrary, the forward quotation would be calculated on the basis that the sale of spot francs to cover would necessitate the bank's becoming overdrawn at its Paris agency, subject, however, to an allowance (which the force of competition would compel the dealer to make) for the use of the sterling obtained in London by the sale of the spot

francs. In this case, then, the discount on the forward rate represents the allowance which the bank's customer must make in order to cover the net cost of the bank's overdraft in Paris for the period of the forward deal.

If, in such circumstances, the margin between the interest rates is *increased* by a change in the bank rate in one of the centres, the tendency will be for the discount on forward Paris in London to increase, i.e., the margin between the spot and forward rates on Paris will be widened. Conversely, if the difference between the interest rates is *narrowed*, the discount on forward Paris will tend to decrease, i.e., the margin between the spot and forward rates will tend to narrow, and may, in fact, disappear entirely in favour of a premium.

In reverse conditions, where interest rates in Paris are *lower* than they are in London, dealers in the latter centre will be disinclined to buy spot francs, and they will therefore be glad to avoid having to sell forward. If possible, they will repatriate part of their funds in Paris by selling spot francs and buying forward francs to cover. The market tendency is therefore to depreciate the spot rate and send the forward quotation to a *premium*, representing the amount which must be paid by anyone wishing to buy forward francs in order to overcome the reluctance of the London dealers to transfer their spot funds to Paris, this reluctance being measured by the loss of interest occasioned by such a transfer.

If, as before, the difference between interest rates in London and Paris is 2 % in favour of the former centre, the *maximum* premium on the forward French quotation will be 20 centimes per month, i.e., the worst forward rate which the London dealer can offer a customer is 123·80 francs per month. In practice, the dealer will ordinarily be compelled by the force of competition to give the customer a slightly better rate than this, the actual rate quoted being determined by several factors to which we must return later.

Now the premium on the forward franc will *increase* if a change in interest rates, either in London or in Paris, increases the difference in favour of London. Conversely, the premium will decrease if such a change lessens the difference in London's favour, while it will tend to disappear altogether in favour of a discount if interest rates in Paris ultimately become higher than those in London.

From this explanation it will be clear that, other things being equal, the forces which send London forward rates on Paris to a premium must send the French forward rates on London to a discount, and *vice versa*. When interest rates are low in Paris and high in

London, the influence of the desire of London dealers to withdraw their funds from Paris is accentuated by the desire of dealers in Paris to transfer their balances to London. Conversely, when interest rates are higher in Paris than in London, the effect of transfers of London funds to Paris will be accentuated by the withdrawal of French funds from London.

The Theoretical Determination of Forward Rates.—It has been indicated that the force of competition compels foreign exchange dealers to allow their customers some part at least of the benefit obtained by moving funds from one centre to another. This fact, together with various indeterminate influences dealt with below, make it almost impossible to explain precisely how a forward rate is calculated at any particular time. The best we can do is to ignore the many indeterminate factors, and illustrate the principles on which forward rates are fixed by taking account only of interest and expenses.

Let us assume that the London spot rate on New York is quoted at $4\cdot86-4\cdot86\frac{1}{2}$, and that a dealer in the former centre is asked by a customer to supply \$50,000, three months' forward. Let us assume further that the best rate which the dealer can obtain on funds in London is 4 %, but that he can get a rate of 6 % by placing funds on three months' fixed deposit in New York. What rate will the customer be required to pay in these circumstances?

Now the dealer who is asked to sell dollars three months' forward will, in ordinary circumstances, assume that he must cover himself immediately by purchasing the same quantity of dollars spot. He knows that he can place these on fixed deposit in New York, to earn interest at 6 % per annum, i.e., 2 % more than the equivalent sum can earn in London. On \$4·86 (the buying price which the dealer will have to pay in the market) interest at 2 % per annum is \$·0243, and this sum represents the *gross* difference (i.e., neglecting expenses) which he can gain per £1, or per \$4·86, by transferring funds from London to New York.

Theoretically, therefore, the London dealer would arrive as follows at the maximum rate which he could quote in the circumstances:—

					\$
He can purchase spot dollars from the London market at	..	..	..	..	4·86
The gain by holding these in New York for three months is	..	..	..	..	0·0243
					<hr/> 4·8843
Deduct expenses, brokerage, etc., say	..	..	..	..	0·0025
					<hr/> 4·8818
<i>Maximum</i> forward rate which he can offer without loss	..	..	..	..	4·8818
					<hr/>
Nearest commercial rate..	..	..	..	..	4·88 $\frac{1}{2}$
or 2 $\frac{1}{2}$ c. discount per three months.					

In other words, the dealer could safely sell his customer three months' forward dollars at $4.88\frac{1}{2}$ per £1 without incurring either profit or loss. Actually, of course, he will want to make a profit, but the force of competition will compel him to pass on to the customer part, at least, of the interest gained by the transfer of funds to New York. At times, circumstances may compel the dealer to hand over practically the whole of the advantage, but it will be clear that, by giving his customer anything *less* than $2\frac{1}{2}$ c. in the rate, the dealer will make an interest profit apart from any other small gain that he may get. Even if as much as half of the total difference is passed on, there will be an advantage of 1 % per annum in favour of the transfer of funds to New York.

Let us now consider the reverse case where the dealer, instead of being asked to supply forward dollars, is asked by a customer to quote a rate for the *purchase of* \$50,000, three months' forward. How is the rate determined in this case?

The dealer will assume that he must sell dollars at the spot rate in order to cover his forward purchase, say, at $\$4.86\frac{1}{4}$. He may have the requisite dollars actually standing to his credit in New York, but, in arriving at his rate for the forward purchase, he will not give the customer the benefit of this. He will assume that the sale of the forward dollars involves his becoming overdrawn with his New York agent and that he will be compelled to pay interest, at the rate prevailing in New York, on the amount of his overdraft—say, 6 %.

The force of competition will not, however, allow him to charge the whole of this rate, since other dealers with balances in New York will be in the market. Moreover, the dealer must make allowance for the fact that, if he covers by selling dollars spot, he has the use of sterling in London for the period of the forward transaction at, say, 4 %. Hence, the interest allowance which the dealer will make will tend to be the difference between the overdraft rate in New York and the rate at which he can employ his funds in London.

Theoretically, then, the forward buying rate would be arrived at as follows:—

The dealer covers by selling to the market at the spot rate	..	..	4.8625
Loss by transferring funds to New York for three months, say @ 2 %	..	..	0.0243
			<hr/>
			4.8868
Add expenses, etc., say	..	..	0.0025
			<hr/>
Rate at which the dollars must be purchased, three months' forward	..	..	4.8893
			<hr/>
say, 4.89, or $2\frac{1}{2}$ c. discount per three months.			

The Modern Method of Covering Forward Business.—By covering forward sales of foreign currency by an immediate spot purchase, or by the purchase of long bills of exchange, the bank dealer is faced with the necessity of making an immediate outlay for the purchase of the spot currency or long bills. But, so far as ordinary business is concerned, a variety of reasons may render any such action both unprofitable and undesirable. Banks prefer to keep their funds liquid, and the practice of laying down funds abroad for any period is resorted to, in the absence of special circumstances, only when the banks find it remunerative to do so from an investment standpoint.

These objections were overcome by the virile growth of the market in forward currencies, which made it possible for the banks to “marry” their forward transactions, i.e., to match or set-off forward purchases with forward sales, and *vice versa*. If a dealer who had sold currency forward could not find a forward buyer among his own customers, he could find one without difficulty by resorting to the forward exchange market through the intermediary of one of the many brokers with whom he is in constant touch. Thus it became the general practice to cover all important forward operations immediately by corresponding transactions in the opposite direction, such covering transactions being effected, in the great majority of cases, on the dealer’s *own* market.

Gradually the operations involved in buying and selling “forward” became a usual part of ordinary exchange business, until to-day forward transactions are estimated to account for at least half of the total dealings on the London market. One result of this is that, so far as relatively small operations are concerned, only the *balance* of transactions, i.e., the difference between the total forward sales and the total forward purchases, is usually covered at once, and, as a rule, no difficulty is experienced in picking up, either in London or in the foreign centre, sufficient forward cover for all ordinary requirements. Moreover, the fact that dealers save up their transactions and, as will shortly be explained, utilise the machinery of the forward market for the movement of floating balances, explains another feature of this market, that forward transactions are usually of relatively large amount.

It will be made clear later on that in certain circumstances a dealer may omit entirely to cover a forward purchase or sale, and, speaking generally, the decision of the dealer in this regard will depend on a number of considerations, including the state of the forward market, and the immediate financial and political outlook both at home and abroad.

A Practical Illustration.—In practice, the method of covering a forward transaction does not consist solely in a corresponding forward deal in the opposite direction, as would appear at first sight. By way of illustrating the actual procedure, we will assume that, when the London–New York spot rate is quoted in the market at $\$4.85\frac{1}{16}$ – $4.85\frac{5}{16}$, and the three months' forward rate $\frac{3}{16}$ – $\frac{5}{16}$ cent under spot, a dealer sells to a customer $\$150,000$ three months' forward at 4.85 .

In spite of the facilities afforded by the existence of a wide forward market in dollars, the dealer will not as a rule cover himself immediately by purchasing forward the requisite sum in dollars. His first step will be to buy *spot* dollars to the amount required, i.e., he will buy a T.T. on New York for $\$150,000$, say, at $\$4.85\frac{1}{16}$. The dealer is thus in the position of having sold $\$150,000$, three months' forward, and of having bought that quantity of dollars for immediate delivery to him.

His next step is to execute what is known as a “spot and forward operation” in order to balance his position, i.e., he enters the forward exchange market and executes a *combined deal* through a broker, selling $\$150,000$ spot and buying the same quantity three months' forward *at a difference*—in market parlance, he “swaps” his spot dollars for forward dollars. For example, he may sell the spot at $\$4.85\frac{1}{16}$ and buy the forward at $\$4.85\frac{1}{16}$, i.e., at a difference of $\frac{3}{16}$ cent against him. The reason for this is that all transactions in the forward market consist of combined deals where forward currency is sold against spot currency, or bought against spot currency, and where all that passes between buyers and sellers is the difference between the two rates, that difference depending, of course, on the current quotation for the forward currency, whether it is at a discount or at a premium.

The dealer's position after completing this “four-cornered” operation may be stated as follows.—

SALES.

$\$150,000$, three months' forward, to customer @ $\$4.85$.
 $\$150,000$, spot to the market @ $\$4.85\frac{1}{16}$.

PURCHASES.

$\$150,000$, spot from the market @ $\$4.85\frac{1}{16}$.
 $\$150,000$, three months' forward, from the market @ $\$4.85\frac{1}{16}$.

The result is therefore that the dealer has bought and sold his spot currency without gain or loss, whilst he has purchased the forward dollars for ultimate delivery to his customer by the market seller at a rate of $\frac{1}{16}$ cent in his favour, representing his *gross* profit on the transactions. To arrive at his *net* profit he must, of course, allow a

certain percentage in the rate for expenses and brokerage, possibly amounting in all to approximately $\frac{1}{32}$ cent in the rate, leaving him with a net profit of about $\frac{1}{32}$ cent.

It now remains to explain why the dealer covers himself by purchasing spot dollars instead of immediately effecting a forward purchase of the required quantity. One reason for this has already been indicated, viz., that market transactions in forward currency always take the form of combined spot and forward deals "at a difference," and the dealer, knowing this, is safe in effecting a spot operation, as soon as he has settled with his customer, if he desires to keep his position "all square."

Secondly, the spot rate is the basis of the forward rate, including that quoted to the customer and the rate at which the dealer must cover, hence it is to the dealer's advantage to fix this rate absolutely, otherwise he may find, when he comes to cover, that the spot rate, and consequently the forward rate, has moved against him. Once he has purchased the spot currency he is protected against an adverse movement either of the spot or forward quotation, and his only risk of loss is that the "difference" between the spot and forward rates may have moved against him by the time he is ready to cover. Suppose that, when the dealer attempted to effect the covering deal, the dollar spot rate was unchanged at $4.85\frac{1}{4}$ — $4.85\frac{5}{16}$, but that the three months' forward rate had moved to $\frac{3}{8}\frac{5}{16}$ under spot. In such circumstances, he can sell his spot dollars at about $4.85\frac{5}{16}$, but his forward cover might cost him somewhere about $4.84\frac{15}{16}$. Such a change is, however, very unlikely in the short time within which the dealer would proceed to cover himself, and this small risk is invariably taken in practice.

The third reason is that, at busy times, it is far easier for the dealer to cover his forward transactions in his spot operations because (a) the latter are far more numerous (although not necessarily as large) so that the spot cover can be worked in with current deals without difficulty; and (b) the dealer can postpone to a less busy moment the trouble and loss of time necessary to calculate the forward rate at which he must cover.

One further point may be noticed. The fact that forward transactions almost always consist of a combined deal at a difference, over or under the spot rate, explains the quotation of forward exchange rates in terms of a given discount or premium per one month, two months or three months, over or under the spot quotations. This method makes it much easier for the dealers to determine the profit

or loss likely to accrue through a forward operation conducted at the quoted rate.

Interest is Now a Fundamental, but not the Only, Factor Determining Forward Rates.—Before forward exchange business developed to any considerable extent, relative interest was practically the sole determinant of such forward quotations as were available. Some forward exchanges, in which there were few dealings, were—and indeed still are—quoted in terms of a certain arbitrary difference on either side of spot, that difference depending mainly on the state of the balances of the bank or banks which specialise in the currency concerned. But in the majority of cases the interest factor was predominant. Forward rates on some centres were even calculated on a percentage basis, over or under spot, that percentage depending on the difference between the interest levels in the two centres concerned.

Nowadays, the manner of fixing the rates is rarely as straightforward as this. The quotations are largely dependent on conditions of demand and supply, and on speculative factors determined mainly by psychological influences. Nevertheless, interest is still the main factor determining the forward rates between countries having stable rates of exchange, reasonable stability of currency and credit, and active, well-organised short-term markets. In fact, it may be stated that, in general, the extent of the divergence above or below “spot” of forward rates on gold standard countries quoted on the London market, i.e., the “*discount*” or “*premium*” on the spot quotations, varies mainly according to the preference of the market for holding its funds either here in sterling or abroad in currency, the degree of this preference being measured chiefly by the difference in the short-term interest rates ruling in the centres concerned.

If interest rates in a foreign country are higher than those at home, the forward rate on that country tends to be at a *discount*, because dealers endeavour to benefit by the obvious advantage of transferring funds to that country by buying its currency spot and selling it forward. If money earns more in New York than it does in London, the forward dollar will be quoted at a discount, that is to say, the forward rate on New York will be higher than the spot quotation. This means that a dealer buying spot dollars is prepared to sacrifice on his covering forward sale some part of the additional interest which he obtains by transferring his money to New York. From another point of view, it means that some part of the advantage gained by transferring funds to New York must be passed on to the buyer of the forward. In actual fact, London forward rates on New York are usually

at a discount because rates of interest on short-term loans in the latter centre are generally more favourable to the lender than they are in London.

On the other hand, if interest rates in a foreign country are lower than at home, the forward rates on that country tend to be at a *premium* because dealers aim at selling its currency spot and buying it forward.

Anticipatory Operations.—Apart from the actual existence of an inducement in the form of a favourable interest level, the mere *expectation* that a favourable movement in interest rates is likely to take place will be sufficient to affect the forward quotations. Dealers who are constantly on the watch for opportunities to employ their funds more remuneratively will not wait for the actual announcement of a rise in a foreign bank rate if they already have a shrewd idea or reliable information that such a rise is about to take place. They will at once begin to move their balances, and their actions will have the effect of influencing the forward quotations before any such movement appears to be justified by a change in relative interest.

We may illustrate this by supposing that interest rates in New York have for some time exceeded those ruling in London, and that, as a result, considerable funds have been invested in the latter centre by London banks. In these circumstances, the discount in the London forward rate on New York will roughly represent the interest gained by holding funds in the latter centre. Let us suppose, too, that the exchanges have for some time tended to move adversely to London, and that the Bank of England has lost and continues to lose large quantities of gold.

Clearly, such conditions point to an early rise in the English Bank rate, and astute bankers in London will not overlook the portents. They know that when interest rates *do* rise in London, balances will at once be transferred thither from New York, and that the immediate effect will be to lower the value of dollars in terms of sterling. Hence, in order that they shall not lose on the reconversion of their dollar balances into sterling, they immediately institute a gradual withdrawal of their funds from the States. Clearly, such anticipatory movements, which result in sales of spot dollars, must lessen the discount between the spot and forward dollar rates by depressing the spot quotation on New York.

To some extent this tendency will be neutralised by speculative sales of “*outright forward*” dollars, i.e., sales of dollars for forward delivery by dealers who “take the view” that dollars will decline in

value, and will therefore be purchasable, when the forward contract matures, at a sufficiently cheap rate to enable profits to be made.

When the change in interest rates is actually made, more funds will be repatriated, with the result that the discount on the forward dollar rate will be still further reduced, and may possibly disappear altogether in favour of a premium.

These factors explain why forward rates of exchange are more sensitive than spot rates to anticipated changes in financial and economic conditions. Indeed, it may be stated that the movement of the premium or discount on important forward rates is an unfailing barometer of sentiment in the Foreign Exchange Market.

Anticipatory dealings of similar character often occur between two stable countries, such as Britain and U S A , which experience marked seasonal commodity movements. The heavy transfer of crops from U S A to Europe in the autumn tends to depress the value of sterling in New York at that period, whereas, earlier in the year, the tendency is in the other direction. Many other exchanges have similar definite and well-known tendencies, and such facts necessarily influence the figures at which buyers and sellers are prepared to operate. A little consideration will show that bankers who are well acquainted with the position may make considerable profit by advance sales and purchases of forward exchange, or *time arbitrage* as it is sometimes called, while their actions will, at the same time, exert a steadying influence on the rates of exchange between the two countries.

The influence of interest as a determinant of forward rates may be neutralised, either entirely or in part, by other important factors. It is obvious that in ordinary conditions there cannot be a very wide margin between the central bank rates ruling in any two of the world's chief centres. In normal circumstances, differences of more than 2 % or 3 % are rare, yet the margins between the spot and forward quotations are often far wider than can be explained even by much larger differences in the rates of interest. Other reasons for the position must therefore be sought.

The Influence of Demand and Supply—There is, first of all, the important question of the indeterminate vagaries of supply and demand. These necessarily influence the price of forward exchange as they influence the prices of any other things which are bought and sold. If for any reason buyers or sellers of forward currency markedly preponderate, the forward rate will be fixed without regard to the relative interest levels. When the market is optimistically inclined, even a considerable excess of supply may have little effect on the

quotation. If, however, pessimism prevails, a relatively small addition to the supply or hesitancy on the part of buyers may provoke a sharp adverse movement in the forward rate.

In general, the course of the forward rates follows fairly closely the course of the spot exchange, but the relation between demand and supply in the forward market is not necessarily the same as that in the spot market, with the result that the forward rates may move quite independently of the spot rates. In other words, changes in the relation between the demand for and supply of forward exchange may cause the discount thereon to widen, or may cause the premium thereon to become reduced, although the spot rate may remain unaltered. The tendency may be briefly summarised as follows:—

The discount on forward rates will tend to increase, or the premium on forward rates will tend to diminish, when—

- (a) there is an increase in the supply of forward exchange relative to the demand, without a corresponding change in the spot position; or
- (b) there is a decrease in the supply of spot exchange relative to the demand, with no corresponding change in the forward position.

The discount on forward rates will tend to decrease, or the premium on forward rates will tend to rise, when—

- (a) there is a decrease in the supply of forward exchange relative to the demand, with no corresponding change in the spot position; or
- (b) there is an increase in the supply of spot exchange relative to the demand, without a corresponding change in the forward position.

“*Time Arbitrage*”.—It must be stated that what are known as “time arbitrage operations” tend to minimise the effects of such disparities in the relationship between supply and demand for forward currency. If arbitrageurs consider that, in all the circumstances, forward currency is unduly depreciated in relation to spot, they will naturally sell spot and buy the forward at the cheaper price, or they will even buy the forward “outright” as a pure speculation, their actions thus tending to narrow or even eliminate the disparity. For this reason we may say that, other things being equal, the result of exceptionally heavy forward sales in forcing down the value of forward currency has a tendency to depress the spot quotation. Conversely, excep-

tionally heavy forward purchases, by making the forward currency relatively dear, tend to encourage purchases of spot and sales of forward, and thus to raise the spot quotation.

Frequently, however, the ordinary influence of supply and demand in relation to forward exchange is accentuated or obscured by speculative factors or by feelings of pessimism or optimism regarding the future course of the value of a currency. These factors will now be considered, but before leaving this question of supply and demand, we may observe that the balancing of supply and demand in forward exchange, as elsewhere, necessitates a fairly large volume of operations in the particular currency.

The market in forward sterling abroad is probably the most extensive, while the largest markets in London, as might be expected, are in dollars, francs, belgas, marks and lire. Transactions on a more moderate scale are effected from London in the Scandinavian currencies, in pesetas and in Dutch florins. Where, however, there is little or no exchange business in a foreign currency, as, for instance, in the currencies of Roumania, Chile and Latvia, it is not always possible to obtain immediate forward quotations. In some such cases of limited market, banks who specialise in the currencies concerned undertake forward business at arbitrary rates, which they may fix at a certain amount or percentage either side of the spot rate, or may arrange by negotiation.

Again, highly speculative exchanges, such as that on Russia at present, have scarcely any forward market, while a country which has no organised short-term market is in the same position relative to a highly organised market as a centre in which rates of interest are particularly low. The tendency of forward exchange rates on such a centre will be to stand at a premium, whilst the forward rates of that centre on more important centres will ordinarily stand at a discount, even though the relative interest level is not in favour of those centres.

Speculative Influences on Forward Quotations.—Speaking generally, a big premium or discount on the forward quotation is an indication of the failure of all normal means of equalising demand and supply in relation to forward transactions, and is usually conclusive evidence that speculative influences are responsible for the prevailing rates.

An excessive *premium* in the forward quotation of a foreign currency in London is a fair indication that speculators here are selling spot and buying forward in the expectation of a marked rise in the value of that currency, or that dealers speculating for the rise are buying the forward "outright". Moreover, if credit conditions in a foreign

country are disturbed: if there are any special risks attached to holding balances in a given currency; if a foreign Government is likely to interfere with the free movement of balances, as by restricting foreign exchange operations; or if there is a possibility of financial trouble or political disorder, the interest factor will be of slight import, and bankers will require a much higher inducement to undertake forward transactions, if indeed they will do so at all. It is for these reasons that forward rates on some countries are quoted at a premium although the interest rates ruling in those countries are sometimes much higher than those existing in London.

Similarly, the *discount* on forward currency tends to rise apart from any question of interest rates if there is a general feeling that the currency will depreciate owing to the prevalence of unsatisfactory conditions in the country concerned. In such circumstances the anticipation that the rate of exchange will fall induces buyers of the currency to postpone their purchases while forward sellers endeavour to arrange their sales at once. Thus the margin between spot and forward rates tends to widen to such an extent that forward facilities, in just those currencies in respect of which they are chiefly needed, become extremely limited or altogether unobtainable.

Prior to the stabilisation of European currencies, such factors were entirely responsible for the level of the London forward rates on certain Continental centres. When the Paris exchange moved from 120 to 240 and back again in the course of a few months it naturally offered a happy hunting ground for profit seekers. At one time speculators would sell spot francs for all they were worth; at another time their purchases would cause the market to be all buyers.

When the value of the franc was rapidly falling, speculators in this and other countries envisaged a further depreciation. Hence they sold forward in the hope of being able to buy the francs back before the maturity of the contract at a cheaper rate, and thus snatch a profit. The banks, who had, of course, to cover these forward operations, naturally experienced considerable difficulty in finding the necessary cover, and therefore increased their margin of profit and required a special allowance for the added risk of these operations. Consequently, forward francs moved to a heavy discount as compared with spot francs.

This position was accentuated by the falling off in the commercial demand for forward francs. Anyone in this or other countries having a franc payment to make, say, in three months' time, would not think of covering himself by means of a forward purchase: he would prefer

to wait until his payment fell due and rely upon getting spot francs at a cheaper rate. On the other hand, anyone outside France having French currency to receive in the future would immediately endeavour to sell francs in advance for whatever they would fetch. Thus forward sales of francs increased whereas forward purchases diminished. The trend of speculative activity combined with the minimum commercial demand necessarily forced the forward rate to a considerable discount.

Now if the forward quotations of francs in the world's markets are at a heavy discount, it is most likely that the forward quotations of stable currencies in France will be at abnormal premiums. This is because anyone in France wishing to secure stable currency, whether from political, financial or other motives, or having foreign currency to pay in the future, would purchase that currency at once for forward delivery, regardless of the prevailing rate, in order to be secured against future depreciation. At the same time, there would be a heavy speculative demand for forward foreign currency in the hope that it could be sold in the future at a profit. In such circumstances we have what in recent years has come to be described as "a flight" from the currency concerned at any cost.

Reverse factors operated when financial and political developments in France presaged a rise in the value of the currency. Speculators now sought to make profits by the purchase of francs for forward delivery in the hope of selling out at an enhanced price. The demand for forward francs naturally forced up their price relative to spot, thus narrowing the discount on the forward.

In the same way, when the German exchange was depreciating rapidly, forward business became almost impossible, being effected, if at all, only at an enormous discount. This was because there was a general feeling that the mark would continue to depreciate, and that the longer one waited the less valuable it would become. Consequently, anyone selling for forward delivery had to allow the buyer a considerable discount to cover the probability of loss.

At the time of writing, speculation is rife in pesetas, mainly because there are general expectations that the Spanish Government will ultimately take steps to stabilise the value of the currency at a higher level than that existing at the moment. Bull speculators are therefore much in evidence, selling spot and buying forward, and despite the erratic movements of the spot quotation continuing to carry their position in the hope that some definite Government policy will shortly be revealed. As a result, the London forward rate on Madrid stands

at a high premium, although relative interest rates alone would not justify the quotation.

When the trend of speculative transactions is thus all in one direction the position is usually too dangerous for arbitrage operations by reputable dealers. In any event, time arbitrage will not be undertaken unless the disparity between spot and forward rates is so wide as to offer some promise of profit even though the currency concerned further depreciates. Actually, continued speculation in the same direction tends to widen the disparity between spot and forward. Bear speculators who, three months ago, sold francs three months' forward can carry their position only by purchasing spot francs and re-selling forward. Such action increases the disparity between spot and forward through its double effect of depreciating the forward rate while forcing up the value of spot. On the other hand, bulls of pesetas who, three months ago, bought the currency three months' forward can carry over only by selling spot and re-buying forward. In this case, the double effect is to appreciate the forward and depress the spot quotation.

“Option” Forwards.—An essential point in connection with forward deals is the “delivery date” of the currency. In many cases, however, the customer cannot say definitely when currency purchased by him will be required, or when currency sold by him will be available for delivery, and in such cases he obtains at the time the contract is entered into an option as to the date on which he may complete the contract. For instance, a merchant may arrange to buy French francs 100,000 forward, three months, with the option of taking delivery at any time up to the end of the three months. It must be noted that the option is merely *as to the date* of completion of the contract, and is not in any sense an option as to whether the contract will in fact be fulfilled or be permitted to lapse.

The difference between spot and “fixed” forward rates has already been explained, but it remains to distinguish between the rates applicable to “fixed” forward contracts and “option” forwards. It must be borne in mind that in the latter case an option is given by the banker to his customer under which the latter is permitted to deliver or to take up the currency concerned on the first or last day or *at any intervening time* of the period arranged. Should the option be exercised on the first day, its value becomes practically equivalent to a spot deal, whereas, if it is exercised on the last day, its value would be equivalent to a fixed forward deal for the period arranged. The values at different times in the period are necessarily expressed by

different forward rates, but as the banker does not know at the time of entering into the contract when the option will be exercised, he protects himself by quoting the worst possible rate from the buyer's standpoint, that is, he quotes for option dates according to the highest possible value of the forward deal.

This explanation will be more clearly understood on a consideration of the following list of rates, based on those previously referred to, and quoted by a banker to sell forward French francs and U.S. dollars.

	<i>Spot.</i>	<i>Forward. 3 months' fixed.</i>	<i>Forward 3 months' option.</i>
Paris (forward quoted at a discount)	92·60	93·72	92·60
New York (forward quoted at a premium)	4·85½	4·84½	4·84½

In the case of francs, the worst rate to the buyer is that which involves the receiving of the *least* number of francs per £1, and from the figures given this rate is that for spot transactions. On the other hand, when the forward rate is at a premium, the worst rate will be that ruling at the end of the agreed period, so that, in the case of dollars, the three months' option rate will be identical with that for three months' forward.

It follows from this explanation that to obtain the best rate it is preferable to fix a certain date for the conclusion of the contract, as the banker is then enabled definitely to fix his commitments and is consequently in a position to quote finer rates.

Forward Exchange as a Means of Transferring Bankers' Funds.—

It is a well-recognised principle of all reputable dealers and bankers in the London Foreign Exchange Market to refuse to undertake forward business which is known or suspected to be of an essentially speculative nature. Generally speaking, all forward operations conducted between banks and financial institutions on the market are covered by corresponding operations, while the transactions undertaken by the banks for their trading customers are in the vast majority of cases covered by actual imports or exports of goods, by services rendered, or by movements of capital for short or long periods. So far as the banks are concerned, the only exceptions occur when forward operations are utilised by dealers to transfer surplus floating balances from one world centre to another in order to make a likely exchange profit or obtain a more favourable rate of interest.

In such circumstances, what we may term a “two-cornered” forward transaction is effected, technically known as a “swap and deposit”. The dealer puts through a combined spot and forward operation, involving the spot purchase of the currency of the centre wherein he wishes to invest his funds, covered by the forward sale of approximately the same amount. But the transaction differs from an ordinary forward operation in that it does not represent the covering or completion of a deal transacted with a customer. As a result, the dealer has a given sum in the foreign currency placed at his disposal in the foreign centre, while he undertakes to deliver the same amount to the forward buyer at the expiration of the period concerned.

The dealer then instructs his agent in the foreign centre to apply the currency purchased in one of the several ways which are available. It may be placed on fixed deposit for three, six, or more months, according to the period of the forward sale, or it may be invested in first-class long bills of exchange purchased in the foreign centre, or, again, it may be used to buy some other form of security—in London, British Treasury Bills, in France, Bons du Trésor Public, and so on. Actual specimens of such practical transactions are given in Chapter XXIV

Obviously, the profit or loss which the banker ultimately makes on an operation of this kind depends on two factors: (a) the rate of interest earned by his funds in the foreign centre, and (b) the “difference” which he received or had to give away in effecting the spot and forward operation. In practice, of course, the dealer will have calculated his anticipated profit before actually undertaking the operation, and, since he is covered against any possible adverse movement of the exchange, there is in ordinary circumstances no reason why his expectations should not be fully realised.

On occasion, the difference on the forward rate may be such that interest up to 7 %, 8 % or even more per annum may be earned on the funds, after making full allowance for the cost of telegrams and for the expense of confirmation by post, even though interest rates in the foreign centre are not specially favourable. At the moment of writing, the operations of bull speculators in the peseta have caused the forward rate on Spain to be quoted at a premium of 31 c. per three months, which is equivalent to 4 % per annum on the rate. Since banks in that country are willing to pay 4 % per annum on three months’ fixed deposits, London dealers can obtain a yield of approximately 8 % per annum by the purchase of spot pesetas against three months’ forward sales, without incurring any risk worth mentioning. If we

assume that the spot rate, London on Madrid, is 32 pesetas per £1, such a transaction works out approximately as follows:—

				Per £1
Cost of pesetas purchased at the spot rate	...	...	...	32·00
Interest thereon at 4 % per annum for three months	...	...	...	·32
				<hr/>
Total of deposit in three months' time	...	...	...	32·32
Less 32·00 sold forward at 31 c. premium	...	...	...	31·69
				<hr/>
Balance representing <i>gross</i> profit	...	...	...	·63
				<hr/>

$$= \frac{·63 \times 100 \times 4}{32} \% \text{ per annum}$$

$$= \text{Approximately } 8 \% \text{ per annum.}$$

Opportunities sometimes arise, involving even higher interest rates, when other countries are especially anxious to secure short-term loans, and offer special inducement in the way of interest on fixed deposits with the object of encouraging investment by foreign banks, thereby affording the latter a clean, quick way of using short-term capital.

The Extreme Importance of the Transfer of Floating Balances.—

We should now be in a position to appreciate that floating balances may be moved from one centre to another in order to take advantage of the best interest return by one of two methods: by (*a*) purchasing first-class bills payable in the centre concerned; or (*b*) by effecting spot and forward operations in the currency of that centre. The first method, which was the more important in pre-war days, and was resorted to mainly by Continental bankers, is now, like the second, of world-wide application.

It may be reiterated that the magnitude of the funds and the ease with which they can be transferred renders their movement the most potent of present-day influences on the rates of exchange in the short period. Clearly, the sudden transfer of funds to the amount of several millions sterling from London to New York, in order to take advantage of a high interest rate in the latter centre, may be quite sufficient to cause a marked movement in the dollar-sterling rate of exchange and enough to neutralise the effect of any other influences.

This influence is of especial importance so far as London is concerned. For many years past London bills have been preferred by foreign bankers as a means of investing their liquid balances, and, to-day, London's position as the leading financial centre and the

world's greatest bullion market, ensures that a high proportion of foreign liquid balances are left there, and will be transferred there, if the prevailing rate of interest stands at a relatively attractive level.

In view of these considerations it is scarcely to be wondered at that practical foreign exchange operators and brokers insist that, in the world of to-day, the rates of exchange between important centres are entirely determined by the transfer of floating balances and similar financial operations. Although we cannot subscribe to this doctrine—which tends to regard an effect as a cause—we cannot, on the other hand, agree with the contention, sometimes expressed, that the importance of the movement of these balances is apt to be overestimated. Mr. R. G. Hawtrey, writing in the *Economic Journal*, expresses this view as follows: “The extent to which exchange banks can transfer their liquid assets . . . is not very great. The fact is that every time the exchange market becomes active balances *appear* to be moving. Whenever there is an exceptional international movement of commodities or of securities, the dealers in the exchange market take a little time to adapt themselves to it. In the interval before the necessary measures have been taken, such as the adjustment of the rate of exchange, the movement of gold, and the regulation of credit, the balances in the hands of the dealers in exchange will get out of trim. The balances in the centre which has to make heavy payments will become inconveniently large, and the dealers will have to move their surplus funds away. It then looks as if a great part of the movement in the exchange market consisted in the transfer of liquid balances by banks. But in reality this is merely a symptom.” *

There is a considerable amount of truth in this statement, but it would doubtless be modified in the light of more recent experience of the international movement of funds and of the practical effect of modern central banking policy. Balances of considerable amount are moved from one centre to another, not in response to trade or speculative demand, but purely as an investment operation or in pursuance of the desire of a central bank to accumulate assets in a given centre. Whilst, therefore, we recognise the limits to the effects of these transfers, we must admit their vital importance in causing sudden and marked movements in the current rates of exchange.

The influence exerted by the direction of trade or by the balance of payments on the state of the exchanges is necessarily one which takes time to operate. The same applies to a change in the purchasing

* “The Gold Standard and the Balance of Payments,” March, 1926.

power of a currency: the effect is not immediate. The change must work itself out through the actions of buyers and sellers—through the interplay of legitimate business and speculation. But it is quite otherwise with movements of large floating supplies of loanable money. Almost before the announcement appears that the rate of interest in an important centre is to be raised by 1 %, bankers are frantically cabling and telegraphing their agents with the object of effecting the necessary transfer of funds to the centre concerned. Sums totalling several millions of pounds sterling may be moved in a very short period of time, and, since every such movement gives rise to a transaction involving the buying of one currency and the selling of another, it necessarily follows that these operations are foremost among those which may influence the exchanges in the short period.

The Importance of the Level of Interest Rates.—Now the banks, which specialise in dealings in and transfers of money, will not hesitate to move their liquid funds from one end of the world to another if they can thereby obtain even a small additional interest return. Hence it follows that changes in the ruling interest rates in the principal financial centres of the world must have most marked effects upon the prevailing rates of exchange. An upward or downward movement in the London rate of interest necessarily increases or decreases the relative attractiveness of that centre for the investment of foreign funds. If the rate is lowered, there will be a decrease in the foreign demand for London bills, and a tendency for foreign funds left here on deposit to be withdrawn for more remunerative employment elsewhere. On the other hand, the raising of the rate of interest attracts foreign investment, both by the purchase of London bills and by the increase of funds on short deposit with London banks.

Every such transfer of funds causes a demand for the currency of the centre to which the funds are being sent, and an increase in the supply of the currency of the centre from which the funds are being withdrawn. Generally speaking, *the extent of the movement* of funds to a given centre will depend on the extent to which the increase in its interest rate increases its attractiveness as an investment centre over other centres, but, in any case, the magnitude of the liquid balances which pass to and fro is sufficient to ensure that even a small interest movement will bring about an appreciable movement in the prevailing rates of exchange. For reasons which we have already repeated, an upward movement of only $\frac{1}{2}$ % per annum in favour of London has been proved time and again to be extremely powerful in attracting foreign funds. As it is with London, so also

it is in greater or less degree with other important centres, such as New York, Paris, Berlin, and Amsterdam.

Hence we may conclude that the rates of interest ruling in the world's chief centres are nowadays of the greatest possible importance from the point of view of the international exchanges, since changes therein modify the relationship between demand and supply for exchange, with material effect not only on the relative prices of foreign currencies, but also on the state of a nation's international balance of payments. This important matter we will revert to in Chapter X.

CHAPTER X

THE BALANCE OF TRADE AND THE BALANCE OF INDEBTEDNESS: BALANCING A NATION'S INTERNATIONAL ACCOUNTS

Trade Statistics.—The Governments of all properly organised States publish periodical statements setting forth details of the nature, quantity and value of all goods imported and exported by the country concerned during the preceding month, quarter, half-year or year, as the case may be. These statements are compiled from particulars furnished by traders on invoices and other documents to the Customs and Excise agencies, and they afford most valuable information respecting the nature and direction of the country's trade during the period concerned. They indicate whether its exports of goods exceed its imports, or *vice versa*; the main items comprising its exports and imports respectively; the main sources of its foreign supplies and the chief overseas markets for its own products.

In addition to statistics of goods, separate records are maintained by all important countries of the movements of gold and silver bullion to and fro across the national frontiers. Gold and silver, by reason of their universal use as money, are easily the most important commodities in the world, and it is only to be expected that full and accurate details of their movements should be available.

Omitted Items—"Invisible" Exports and Imports.—But in spite of the great importance and value of the published statistics relating to the movement of goods and bullion, they are deficient in one important respect. They contain no record of payments made to or by a country in respect of the many other items, apart from goods or bullion, which give rise to international payments, e.g., debts arising from the carriage, insurance and finance of goods, debts to be paid or received in respect of the loaning and investment of funds abroad, and debts arising from the transfer of funds by banks and other institutions. The absence of such items from the recorded statistics of trade has led to their being described as *invisible imports* and *invisible exports*. We know that they exist and that, in the case of this and

other countries, they amount to millions annually. But we have no precise record of their quantity, direction or value, and the best we are able to do at present is to estimate their extent and worth.

The term invisible *exports* is applied to those unrecorded items and services for which payments have to be made *to a country*, and which have therefore the same effect as exports of actual goods, e.g., exports of British Treasury Bills purchased by foreigners. They create a foreign demand for the currency of the selling country, and must in the long run be paid for by the purchasing country either in money or in goods. On the other hand, services and other unrecorded items for which a country has to pay are referred to as invisible *imports*, since exports of money or of commodities have to be sent in payment to other countries.

It should now be apparent why the difference between the *recorded* details of a country's imports and exports of goods and bullion during a given period is referred to as the *visible trade balance* during that period. The object is to distinguish this balance from that which is struck after including the estimated totals of the payments to be made and received by the country concerned in respect of the various invisible items referred to.

Invisible Exports and Imports of the United Kingdom.—In the case of our own country, the statistics or returns of imports and exports are published from time to time in the *Board of Trade Journal*. These returns regularly disclose a large excess of imports over exports, as is indicated by the following table:—

United Kingdom: Visible Trade Balance, 1926-1928.

(In Millions of Pounds.)

Movement.	1926	1927	1928
Imports—			
Merchandise .. .	1,241·4	1,218·3	1,196·9
Bullion and specie	49·7	39·6	58 0
Total	1,291·1	1,257·9	1,254·9
Exports—			
Merchandise ..	778·5	832·0	843·7
Bullion and specie .. .	38·1	36·2	51·7
Total	816·6	868·2	895·4
Excess of imports over exports ..	474·5	389·7	359·5

In the Board of Trade statistics, from which these figures are taken, imports are entered at their C.I.F. value (i.e., their value including original Cost, *plus* Insurance and Freight to the port of *delivery*), but exports are entered at their F.O.B. value (i.e., their value *plus* any charges necessary to place them Free on Board ship at the port of *loading*). Hence, to afford a true comparison of the relation between the values of our total exports and imports, the total value of the exports should strictly be increased by the *estimated* total of freight and insurance charged in respect of them.

Now the figures indicate that our total imports of goods and bullion are not by any means all covered by similar exports. Hence, the question naturally arises, how is the excess paid for? The answer to this question is to be found in the fact that, on the balance, enormous sums have regularly to be paid to this country in respect of various invisible items. Some of these payments represent accruing *income* or *revenue*, whereas others are *capital* items, i.e., they represent movements or transfers of capital, in the form of goods or of money, to and fro between this country and other countries. If we apply an accounting analogy, we may say that the income or revenue items are those which pass into and out of our *Current Account* with the rest of the world, whereas the capital items are those which affect our *Capital Account*.

We will confine our attention for the moment to income or revenue items only, and consider them briefly under the following headings: (a) Shipping Income; (b) Investment Income, (c) Income from Banking, Insurance and similar services; (d) Miscellaneous receipts on Income Account.

Shipping Income.—This item covers the net revenue received by Britain in respect of the services of her mercantile marine and associated industries. It is estimated by the Board of Trade that our net shipping income has for some years past exceeded the huge figure of £100,000,000, and that in 1928 it was not less than £130,000,000. This figure includes, besides remuneration for the carriage of goods, compensation to our shipping companies for many other services performed through their agencies in overseas ports, together with sums paid by foreign ships in British ports for bunkers, stores, port dues, etc. On the other hand, deduction is made of the estimated total sums paid by British ships in foreign ports for similar services.

Investment Income.—It is unfortunate that bankers and financiers in this country, who have the requisite information available, have not yet thought it worth their while to conduct investigations with the

object of providing some reliable data respecting the magnitude of Britain's annual income from overseas investments. The only information so far available is that based on the pre-war researches of Sir George Paish, and the more recent inquiries of Sir Robert Kindersley, who estimated our total holdings of foreign investments in 1927 to be in the neighbourhood of £4,000,000,000. Thanks largely to the efforts of these investigators, the Board of Trade was able to arrive at a figure of not less than £285,000,000 as the *net* income accruing to this country in 1928 from overseas investments of a *joint stock character*, after allowing for deduction of income paid to foreigners in respect of their investments here.

The figure here quoted is considered to be on the conservative side since it takes no account of income from investments of a *private* nature (i.e., other than in joint stock undertakings), or from bankers' balances held abroad, or from short term loans to other centres in respect of which items no data are available.

On the other hand, allowance is not made for the income paid to foreign investors in respect of their holdings of British securities, for interest paid on foreign balances held in London (either in sterling bills or otherwise), nor for income paid to foreign owners of businesses and factories in this country. At the same time, it is probable that the payments due to us in respect of these items are in excess of the payments which we have to make, although no actual figures can be given owing to the inadequacy of the information available.

From the figures quoted on page 255, it will be observed that Britain's estimated annual investment income appears to be considerably in excess of her annual investment of new capital abroad, as evidenced by the total overseas issues on the London market. For this reason, Britain shares with the Netherlands the distinction of being a *mature* lender, in contradistinction to lenders who are described as *immature*, because their annual capital investment apparently exceeds their current investment income.

Income from Banking, Insurance and Similar Services.—Under this heading are included (*a*) the payments made to our bankers, brokers, merchants and accepting houses for commissions and brokerage in respect of services rendered in the financing of trade and the marketing of goods, together with (*b*) the premiums paid to our insurance companies, brokers and underwriters in respect of the insurance of goods exported from this country, and in return for marine risks undertaken on foreign account, i.e., for goods which never touch our shores, and (*c*) commissions paid to brokers and agents on the London

Stock Market and produce exchanges for business executed on foreign account. For the year 1928 the total under this heading was considered by the Board of Trade to be in the neighbourhood of £65 millions, but since no reliable statistics are available, the estimate is very largely a matter of expert opinion.

Miscellaneous Receipts on Revenue Account.—Apart from the main items in the foregoing paragraphs, there are a considerable number of other items of less importance from the point of aggregate annual value which give rise to payments by other countries to the United Kingdom. Among these may be mentioned payments made on account of the sale by Britain of second-hand ships; the sums which are sent home by British settlers or emigrants in other countries, the sums remitted on account of profits by the overseas branches and agencies of British commercial houses; the amounts paid by other countries in respect of tourists' expenditure in this country, giving rise, as we have seen, to drafts drawn under letters of credit, traveller's cheques and circular notes which have to be collected by our banking institutions from the issuing banks abroad, and, finally, payments made to our Government as, for example, the payments made to us by European countries on account of war debts, the reparation payments made by Germany, and the contributions made by India and other parts of the Empire for services rendered by the War Office, Admiralty and other Government Departments.

Miscellaneous payments of similar kind have, of course, to be made by Britain to other countries, since all the chief commercial nations of the world become creditors, in their degree, of the other nations in respect of such items, but the Board of Trade estimates the *net* total paid to Britain under this heading to be somewhere about £15 millions, although this figure also is regarded as erring on the conservative side.

Britain's Favourable Balance on Current Account—The importance of the foregoing enumeration of the various items comprising Britain's invisible exports and imports lies in the fact that the total payments which have to be made to our own country in respect of these items within a given period of time is greatly in excess of the total payments which she has to make. Each year, in the Spring, the Board of Trade publishes estimates of the total payments made and received by the United Kingdom during the preceding year in respect of visible trade and invisible revenue items, and the effect of the computation is to show that the *net* income accruing to us on account of invisible items is considerably more than is required to redress the adverse visible balance of trade in goods and bullion.

A statement of the position revealed by the Board of Trade figures for 1928 is given below. From this it will be observed that the net balance of payments in favour of this country in respect of that year, i.e., Britain's favourable Balance of Indebtedness on current account, excluding capital items, was estimated to be very close to £150,000,000.

United Kingdom: Estimated Statement of Balance of Payments on Current Account, for the Year 1928.

	£	£
Total imports of goods.. ..	1,196,900,000	
Total exports of goods	843,700,000	
	<hr/>	
Excess of imports of goods	353,200,000	
Excess of imports of bullion	6,300,000	
	<hr/>	
Due in respect of the Excess of imports over exports of goods and bullion, i.e., <i>adverse visible trade balance</i>		359,500,000
Estimated net receipts for <i>Invisible Exports</i> :—		
Net income from foreign investments	285,000,000	
Net income from shipping services	130,000,000	
Net receipts from banking and other services	65,000,000	
Net miscellaneous receipts	15,000,000	
Excess of Government receipts from Overseas	13,000,000	
	<hr/>	508,000,000
		<hr/>
Net Balance on Current Account in favour of this country ..	£148,500,000	
	<hr/>	

It must be clearly understood that the values here given for receipts from our invisible exports of services are merely estimates, which are in fact based on such slender material that, at the best, they can only be described as arbitrary. On the other hand, the figures are the most accurate that can be obtained with the meagre statistics which are available, and they do give us some idea of the amount which Britain exacts from the other countries of the world for her services as an international shipper, underwriter, banker and financier.

A Tangible Balance Does Not Actually Exist as Such.—Apart from the fact that the balance of payments as here computed is little more than an estimate, it must be clearly understood that figures such as those quoted are compiled by the Board of Trade in this country, and by similar agencies in other countries, merely to provide some indication of the relation between the payments which a country has received within a given period and the payments which it has to make. It is entirely erroneous to regard such a balance as existing between one country and the rest of the world at any particular time, or to

imagine that, a nation, like a trading company or an individual, is in a position to "strike" a Balance, or to draw up a Receipts and Payments Account, covering a given period of time. It is possible for experts to estimate the total debits and credits resulting from a nation's international business. But experts cannot say that, up to a given date, a country's nationals have paid away so much and received so much and, therefore, that there is a certain balance which must be immediately paid or received in order to "square" the accounts.

At no time does the relationship between the inflow and outflow of goods, or the relationship between the payments being made and the payments being received on the Foreign Exchange Market, bear any direct relationship to this estimated balance on a country's current account. The relationship between the inward and outward movement of goods is an ever-changing one. On one day, the value of imports may be in excess of the value of exports. On another, the value of exports may be the greater, while it is conceivable that at certain times the two values may be equal.

It used to be stated by foreign exchange theorists that this changing relationship between the inflow and outflow of goods was mainly responsible for the position of the prevailing rates of exchange. But a little consideration will show that the payments being made on the London Foreign Exchange Market at any particular time have not the slightest relation to the quantities or values of the goods which are at the same time passing in and out of the United Kingdom. From day to day, from hour to hour, debts are being paid, set off and cancelled one against the other by the actions of the foreign exchange dealers. But some of these debts concern goods which have passed between this country and others during the previous three months; others are debts incurred in respect of goods which are being paid for in advance, whilst others again represent manufactured goods and rolling stock sent overseas probably twenty, thirty or very many more years ago.

All this goes to show that the payments passing between one country and another during any particular period are in no sense a matter of just one year's trading. They stand for interest and capital repayments of old debts, payments on account of new loans, payments being made out of faith, hope and charity, as well as payments which have the more solid backing of material goods and of services rendered. Some payments represent goods which have long ago been used up or destroyed; some are instalment payments on account of goods in actual course of transfer, while others again are payments in

advance for commodities which have yet to be harvested, mined or manufactured.

Just as there is no relationship between the *total* value of the debts being settled on the Foreign Exchange Market and the actual movement of goods at the same time, so also there is no relationship between the total value of debts in process of settlement and the aggregate balance owing to or by a country on any particular day. Hence a balance of indebtedness if it exists does not in any sense *determine* the rates of exchange. The most that can be said is that an adverse balance of payments in process of being made *influences* the exchanges of a country unfavourably, whereas a favourable balance on the day's transactions has the reverse effect.

What Becomes of Britain's Balance on Current Account?—

Although the Board of Trade estimates of Britain's annual current account balance vary considerably from one year to another, they show on the average a very considerable balance in her favour. Now, if we looked no further than these figures, we should expect to find that (a) the exchanges were usually very much in favour of this country and practically always at the gold import points, and that (b) we imported from other countries as much gold as they would release.

Actually, the rates of exchange between London and other centres are on the whole favourable, but they are not always at the gold import points. One possible explanation for this position has already been given. the payments made and received on the London Foreign Exchange Market during any day or during any week have not the slightest relationship to the annual balance which Great Britain is estimated to make out of her international business. While at one time of the year the exchanges may be very much in her favour, at another they may be seriously adverse; as, for example, when the demand of the British Government for dollars to meet our debt payments to U.S.A. coincides with a heavy demand for dollars to pay for imports of cotton, wheat and other products. On the average, however, the rates of exchange between London and other important gold centres keep fairly near to the mint parities, and rarely, if ever, move much beyond the gold specie points. Again, while in the course of a year Britain imports considerable quantities of gold, she also exports almost equally large quantities, and on balance there is usually very little in it. Indeed, in some years, she may export far more gold than she receives.

Obviously, the exchange position so far as the United Kingdom is

concerned is one of comparative equilibrium. The demand for sterling in other centres keeps reasonably close to the supply. How, then, can this position be accounted for in face of the large balance estimated to accrue in our favour each year?

The answer is that Britain, through the unrivalled agency of the London Money Market, annually invests abroad at least as much as the estimated surplus of her receipts over her payments. In other words, her annual excess of receipts due to her heavy invisible exports is counterbalanced by *invisible imports* of securities from other countries in respect of capital issues made in the City of London on behalf of foreign Governments, foreign municipalities and foreign commercial enterprises.

The estimated surplus arising from her current account transactions never accumulates to the extent that other countries have to send her vast amounts of gold or have otherwise to effect payment for services rendered. The surplus is depleted at least as rapidly as it is earned. The income or revenue is never actually "pocketed", almost before it is due and received it is earmarked as a loan or capital export to some needy borrower.

According to the Midland Bank annual statistics of overseas issues on the London Money Market, the amount so loaned by this country in 1928 was £143,000,000, and by combining this figure with the Board of Trade figures for the same year, as given on page 238, *supra*, we obtain the following statement, which, considering the magnitude of the figures and the method of their computation, demonstrates in a truly remarkable manner the fact that, when allowance is made for both capital and revenue items, Britain's total annual payments abroad are approximately equal to her total annual receipts from all foreign sources

United Kingdom: Total Receipts and Payments on Current and Capital Account for the Year 1928.

(In Millions of Pounds.)

RECEIPTS.			PAYMENTS.		
		£			£
Imports of goods	1196.9		Exports of goods	843.7	
Net imports of bullion ..	6.3		Net Invisible exports ..	508.0	
Net imports of securities in respect of capital issues ..	143.0				
Difference unaccounted for ..	5.5				
Total	£1351.7		Total	£1351.7	

This statement indicates that our exports of goods and the "invisible" services which we render to other countries are paid for partly by imports of goods and bullion, and partly by imports of securities. It will be explained in the next chapter that the figures are not conclusive, mainly because the total of overseas issues here quoted comprises public *joint stock issues* only, i.e., it excludes short-term investments and loans, and *private* movements of capital, of which no statistics are available. At the same time, it is as likely as not that in 1928 the inflow and outflow of these items were about equal, or it is possible that the balance of private capital and short-term capital exported made up the "Difference Unaccounted for" in the foregoing statement. So long as it is borne in mind that some of the figures are merely estimates, which may involve an error of several millions either one way or the other, our argument is not invalidated. The totals of debits and credits are sufficiently near to each other to justify the contention that their tendency is to balance.

A Large Balance on the National Current Account Must be Offset by Capital Movements.—This analysis of Britain's international financial accounts will have prepared the reader for the statement, which in some quarters will doubtless be regarded as heretical, that no country, and especially a country which seeks to maintain the automatic working of the gold standard (i.e., the automatic adjustment which follows the maintenance of parity between the purchasing power of her currency and the purchasing power of gold), can for long have a large annual balance of payments or of current indebtedness, one way or the other. While, for a short or a long period of time, a nation may have an adverse or a favourable *balance of trade*, i.e., a balance between the total values of her exports and imports of goods, it is not possible for any nation to maintain a consistently heavy adverse balance of indebtedness in respect of all national transactions, nor, on the other hand, a permanent favourable balance of any magnitude.

A root fact about the maintenance of the gold standard is that the exchanges shall be kept as close as possible to the mint parity with any other gold standard country, and that actual movements of gold shall be reduced to a minimum. But neither of these objects can be achieved in the face of a considerable balance one way or the other on the national Current Account. Small adjustments can, of course, be effected without difficulty by imports or exports of gold, but it is quite another matter when it comes to the settlement of a heavy balance. It is more than likely that the available supplies

of gold might not be adequate for the purpose, and, even if they were, the movements of considerable amounts of the metal would (in the absence of special measures, such as have been recently applied in the United States) have such disturbing effects on the credit machine in both the importing and exporting countries that they will be avoided if it is at all possible.

A favourable balance on Current Account, such as we have seen to exist in the case of the United Kingdom, or an unfavourable balance, such as Australia, New Zealand and the United States had to face every year in the early stages of their youthful development, must be offset in some way. The national accounts must balance, and that balance will be achieved either *automatically* because the prevailing conditions bring about a change in the direction of trade, or *artificially* by the stimulation of transfers of capital, either in the form of long period loans or short period investments.

We will verify the truth of this statement by considering the two cases of (a) countries which have a large adverse balance of indebtedness on current account, and (b) countries, in the reverse position, with a large balance of indebtedness in their favour.

Countries with an Adverse Balance on Current Account—Let us suppose that an important gold standard country consistently imports much more than it exports, and does not make up the difference between the values of goods imported and exported by invisible exports of services and other items. What will be the result? Clearly, the demand for foreign currencies on the nation's exchange market will be in excess of the supply, while the supply of that nation's currency on foreign exchange markets will be in excess of the demand. In either case, the rates of exchange will be unfavourably influenced against the country concerned, and the value of her currency in terms of other currencies will tend to fall. The external exchange will *undervalue* the currency. Instead of being at the purchasing power parities with other gold currencies, i.e., at the mint parities, the rates of exchange will be adverse to the country concerned.

Now, in the absence of what we may describe as artificial *financial* correctives, this state of affairs will tend automatically to adjust itself. The fall in the value of the nation's currency as compared with the value of other currencies discourages foreign exporters *to that country*, since, as sellers of its currency, they realise less. On the other hand, it encourages foreign importers from the country concerned, since they benefit from the relative cheapness of its currency in terms of their own money. In the country itself, exporters are

encouraged because the foreign money which they receive realises more, whereas importers are discouraged by the greater cost of the foreign money required to pay for foreign goods.

Other forces act in the same direction. The excess of imports over exports and the outflow of gold bring about a fall in internal prices and a rise in the value of money, which we have assumed to be gold or its equivalent. The country becomes a poor market in which to sell but a good market in which to buy. Imports of goods are therefore discouraged and exports of goods are encouraged. This position is accentuated because the producing classes and exporting interests have to curtail their expenditure, part of which will be on commodities and part on investment. Purchases of foreign-produced goods, amongst others, will therefore diminish, while foreign investment will be decreased. The slackening in the demand for home-produced commodities makes the home markets less prosperous, credit contracts and the value of the currency rises. Its external purchasing power improves, and thus the general tendency is for the exchange to return to the mint parity, for the adverse balance of trade to be corrected, and for a position of more permanent equilibrium to be established.

But it may not be desirable that such an adjustment should take place. The country concerned may not be able to live and to prosper without the help of imports from other nations. She may be a war-impooverished State like Germany or Hungary in 1918-28, endeavouring to get on her feet after a great war or an internal revolution. She may be a young country, like Australia or New Zealand or Brazil, seeking to develop her resources and build up her economy. Imports from abroad are in such circumstances essential, whereas exports, for some time at any rate, must be relatively small. Other means must therefore be adopted to permit of a continuance of the disparity between imports and exports, and yet bring about a position of equilibrium between a nation's debits and credits. Generally speaking, the method adopted will consist, as is explained hereafter, in raising money abroad by long or short period borrowings.

But although such expedients as the raising of foreign loans may bring about a more or less temporary equilibrium, they also cannot be continued indefinitely. The time arrives when the credit of the borrowing country is exhausted and the other countries are disinclined to lend further.

Moreover, every loan which is raised abroad means that the borrowing country has to increase her exports of goods by the value

necessary to meet the annual interest and services of the loan. In other words, the nation concerned must create a sufficient credit balance on revenue account to pay the interest due to foreign lenders. Hence, the total amount that the nation *can* borrow will be determined by the total annual amount of interest which she can offer to pay without still further upsetting the equilibrium between her payments and receipts.

This, in fact, is precisely what has happened in the past in the case of several of the new countries throughout the period of their development. For a long period of years, the exports of Australia, Brazil and of the Argentine, for example, were quite inadequate to counterbalance the payments they had to make for the heavy imports of manufactured goods, plant and machinery, ships and services supplied by other countries and, in particular, by Great Britain. The deficiency was made good by the flotation of foreign loans mainly on the London Market, but each of these countries has experienced considerable difficulty from time to time as a result of having borrowed more than was justified by the surplus value of her annual exports of goods and services.

In the same way several European countries, having borrowed heavily in order to set their post-war finances in order, are now faced with considerable difficulty to increase their exports to that extent necessary to meet the annual charges on their borrowings. Germany, especially, between 1924-28 resorted to foreign borrowing on a vast scale in order to meet her reparation payments and cover her consistently adverse balance on current as opposed to capital items. Clearly, borrowing on such a scale and in such circumstances cannot continue indefinitely. Apart from the fact that international credit conditions must ultimately make further borrowing impossible, there is the undeniable fact that an excessive influx of capital, attracted at high rates, cannot benefit the borrowing country, and must in some way arrest her development. Hence, if Germany is to continue to pay reparations without further borrowing abroad, important changes in her international balance of payments are called for, and, in particular, a substantial expansion in her export trade.

Countries with a Favourable Current Account Balance.—Similar forces operate in the reverse circumstances where a nation's commodity exports regularly exceed her commodity imports, or where, as in the case of Britain, a nation's adverse balance of visible trade is more than counterbalanced by the excess of current payments to be received on account of invisible exports. Clearly, in the absence of other

correctives, the position in such a case will be that the exchanges are influenced in favour of the country concerned, and that she should receive considerable quantities of gold from other nations in settlement of the balance in her favour.

But the inflow of gold will not continue indefinitely. Apart from the fact that the available supplies of gold may not be adequate, forces will be set in motion which tend to bring into being a better equilibrium between payments and receipts. The constant excess export of goods and the inflow of gold cause goods to be relatively scarce and money to be relatively plentiful. Prices rise and the value of money (i.e., gold) falls. The external exchanges with other gold standard countries *overvalue* the currency. They move so far from the purchasing power parities, i.e., the mint parities, that foreigners defer purchases of the currency concerned, whereas holders of that currency are encouraged to exchange it for other gold currencies. The country becomes a good market in which to sell but a poor market in which to buy. Hence imports are encouraged and exports are discouraged until the direction of trade is changed and a more permanent equilibrium established.

All this presupposes the absence of other correctives, but just as a country with an adverse trade balance resorts ultimately to foreign borrowing in order to effect equilibrium between her payments and receipts, so also a nation with a consistently favourable balance of trade, or a nation with a consistently favourable balance on current account, equilibrates the position by investing the surplus overseas.

If a nation has an excess of exports over imports, the producers of the exports will receive relatively increased profits and wages which they will want to spend. The same applies to those in receipt of lucrative incomes from invisible services. Part of this income will be spent on commodities and part on investment. The wholesale and retail dealers sell more goods and they also find their incomes increased. Hence they, in turn, spend more on commodities or on investment. Any additional amount spent on foreign-produced commodities will naturally tend to rectify the disparity between imports and exports. The part that is applied in investment may be invested at home, but normally there is a greater increase in attractive investments overseas than there is at home. Hence the greater proportion of the available money will be attracted abroad.

The process continues until the exceptional exports are fully covered either by imports or by external investments. If the standard of living is already high—as it is in Britain's case—the proportion

spent on investment will be relatively greater than that spent on commodities. The tendency is for the excess of exports to be invested abroad, and with each addition to the total of overseas investments, the annual income therefrom increases and so adds to the future surplus available for the purpose.

BALANCING A NATION'S INTERNATIONAL ACCOUNTS.

Borrowing and Lending Effect Equilibrium.—Thus we conclude that, if a nation's annual transactions involve a large standing deficiency of receipts as compared with payments, she will be compelled to remedy the position by borrowing abroad, either for short term or long periods, or, what comes in effect to the same thing, she will be forced to raise credits abroad out of which to make the excess payments. If, on the other hand, the transactions of a country result in a consistently heavy surplus of receipts, the position will be equilibrated, in the absence of other measures, by loaning the surplus to other countries for development and other purposes.

An individual whose income exceeds his expenditure ordinarily invests the surplus in securities which by their yield of interest increase still further his future income. So also a nation whose annual international business brings in considerably more than she has to pay, invests the surplus in other countries. She pays away the excess in return for securities which she imports, and by so doing achieves that balance between her payments and receipts which is so essential to the maintenance of stable exchanges and a stable price level. In brief, a country with a surplus on her international income or current account is compelled to lend that surplus abroad, whether she likes it or not.

From the standpoint of ultimate equilibrium, it does not matter whether the nation lends or borrows for long or for short periods. But there is a vast difference between the two from the standpoint of their immediate effect on the prevailing rates of exchange. To understand why this is so, we must briefly revert to the important question of relative interest rates discussed in the preceding chapter.

Central Bank Influence on the Exchanges.—The control of interest rates in all civilised countries is vested in the hands of a Central Bank. In our own country we have the Bank of England, in Germany there is the Reichsbank, and in the United States the Federal Reserve Banks, which collectively perform the central banking functions for that country. The central bank exercises its control over the pre-

vailing rates of interest through its power to force all other interest rates in its own centre to follow the movements in its own rate of discount (i.e., its rate for discounting first-class bills of exchange), which is fixed according to the dictates of its policy and usually in close consultation with the central Government of the country concerned. The actual mechanism by which this result is achieved in this country will be considered in detail in the next chapter, but it will be apparent that, if the central banks are able to control the rate of interest in their own centres, they are in a position to influence the inflow or outflow of floating balances for short-term investment, and can accordingly bring about considerable modifications in the prevailing rates of exchange.

The Keynotes of Central Bank Policy.—What, then, determines the policy followed by the world's central banks in fixing their rates of discount and so the rates of interest in their respective centres? There are two main objects. The first is to maintain a steady internal price-level by so regulating the volume of credit that internal trade and industry shall be disturbed as little as possible by changes in the value of the circulating media of payment, and so that the foreign exchanges shall not be disturbed by changes in the purchasing power of the currency. The second object is to maintain stability of the external exchanges so that the country's foreign trade may be smoothly conducted on a certain and secure basis.

In seeking to achieve these two objects, most central banks pin their faith to the gold standard. This, as we have seen, implies the maintenance of both the internal and external values of a currency as nearly as possible on a par with the value of gold. Internally, the circulating currency must be exchangeable for gold on demand. Externally, the exchange must be kept as close as possible to the mint parity with any other gold standard currency, and fluctuations in the rates of exchange must be confined within the gold points by the removal of all restrictions on the import and export of the metal.

Ensuring Temporary and Permanent Equilibrium.—But the adherence to the gold standard implies something more fundamental than this. It implies, first of all, that there shall be a position of reasonable *temporary* equilibrium between the demand for and supply of the currency concerned on the foreign exchange market, so that the rate will not move too far from the mint parities with other gold currencies. Secondly, it implies that there shall be a position of more *permanent* equilibrium on the nation's international account, i.e., that, in the long run, a nation's credits shall balance its debits.

It is the function of the central bank to ensure that these positions of both temporary and more permanent equilibrium are achieved. Generally speaking, temporary equilibrium will be established by the actions of the banks and exchange dealers. We have seen that the London foreign exchange dealer endeavours to end the day with a "balanced book," i.e., equivalence between his purchases and sales of each foreign currency. We have seen, also, that the banks equilibrate demand and supply for exchange by offering foreign currency (e.g., in the form of finance bills) when it is in demand and dear, and by purchasing foreign currency to replenish their balances when it is in supply and cheap. When necessary, the banks arrange exports or imports of gold in order to balance the position, i.e., the automatic corrective action of the movement of gold is engendered by the efforts of the banks to rectify the disparity between current demand and supply on the exchange market.

In such circumstances, the central bank intervenes only to assist the daily adjustment of demand and supply. In a gold exchange standard country, the central bank does this by offering to buy or sell foreign currency as may be required to equilibrate the position. In a gold standard country, the central bank may itself undertake the movement of bullion, or it may buy and sell exchange as may be required, or it may resort to other measures to influence the volume of credit and so rectify the position. The measures so adopted in this country are discussed in Chapter XII.

Balancing the National Debits and Credits.--As a general rule, the result of the operation of these factors is that the adjustment of the debits and credits which go to make up a nation's international accounts is brought about automatically, we might almost say unconsciously, by various forces which come into play. The interminable operation of debt settlement which goes on from day to day and from hour to hour between one nation and the rest of the world is a restless process of creating and extinguishing debt tending constantly to square the totals of that nation's receipts and payments.

When, however, the national balance of payments remains consistently adverse or consistently favourable, all ordinary means of remedying the position are doomed to failure. Radical methods must be applied to correct the disturbance of equilibrium. Again, it must be emphasised that this disturbance is not revealed because a nation from time to time extracts a Balance Sheet or an Income and Revenue Account, like an individual or firm, and then and there decides that special action must be taken; that, if the balance is adverse, the time

has arrived for a foreign loan to be obtained, or, if the balance is favourable, that arrangements must at once be made to lend the surplus abroad.

On the contrary, the disturbance of equilibrium is indicated by various symptoms which unmistakably reveal the trouble to those responsible for the application of the recognised remedies. To the initiated mind, the movements of the principal gold exchanges, in particular, are an unfailing barometer on which the state of a nation's balance of payments may be read at any time. In addition, there may be an excessive accumulation or marked diminution of wholesale stocks, a notable scarcity or abundance of credit, pronounced movements of prices, or a heavy inflow or outflow of gold.

If any of these symptoms are present, it becomes clear that active interference is called for by those responsible for the nation's monetary affairs. At the present time, this interference takes the form of action by the Government or by the central bank, and most usually the latter, with the object of modifying the relationship between the demand for and the supply of the national currency on the world's foreign exchange markets, by (*a*) encouraging the creation or the extinguishment of debt, and/or (*b*) bringing about a change in the purchasing power of the currency through a suitable adjustment of credit.

Now the second of these methods takes some time to operate. Changes in the value of a currency, i.e., in the general level of prices, are brought about through the actions of traders and consumers, through the interplay of supply and demand—processes far too slow in operation to save the situation in a country which is being denuded of its gold reserves and is suffering from other effects of consistently adverse exchanges. They are equally unsuitable as a quick remedy in the case of a country which is being flooded with unwanted gold.

The first method, involving the encouragement of the creation or extinguishment of debt, has no such disadvantages. It is a remedy which can be applied with the greatest ease and one which is capable of extreme rapidity of action. To explain more easily why this is so we will confine our attention for the moment to the case of a country which has accumulated a large adverse balance on current account, and assume that the important foreign exchanges have become dangerously unfavourable through the constant excess of foreign supplies of her currency in relation to the demand, or, what is, in effect, the same thing, through the consistent excess demand on her own market for important foreign currencies.

In these circumstances, adjustment can be effected in one of two ways: (*a*) the supply of foreign currency available for making payments abroad may be increased; or (*b*) the foreign demand for the country's own currency may be increased. Now the supplies of foreign currency wherewith to make payments abroad can be increased by exporting gold. But, with the possible exception of a country which is a large producer of the precious metal, this is a method which is limited by the supplies available and is obviously one which cannot be continued indefinitely.

The Government or central bank may, therefore, endeavour to increase the available supplies of foreign currency by borrowing money abroad, either by floating long- or short-period loans or by establishing credits in other countries, or, it may adopt the other alternative, and take steps to increase the foreign demand for its own currency.

The first of these alternatives, i.e., borrowing money abroad, is one which has been very widely adopted during recent years for the purpose of equilibrating national accounts. But this method also has its disadvantages. It takes a little time to arrange loans in other countries, while borrowing abroad is not always desirable, or even possible.

We are thus thrown back on the other alternative of increasing the foreign demand for the currency of the country concerned, and it is here that advantage is taken by the world's central banks of the existence of the investment demand already explained. If the trend of the exchanges and the available statistics indicate that the country has accumulated an adverse balance on her international account, the central bank raises its rate of discount in order to attract foreign balances for short term investment and thereby induces a foreign demand for the nation's currency.

Let us apply this to our own country, and suppose that the tendency is for the exchanges to move unfavourably and for gold to leave London. The Bank of England raises its rates of discount, and if, as a result, interest rates here become higher than they are in Paris and Berlin, bankers in the latter centres will prefer to hold their surplus balances in London rather than at home, and they will, as a rule, take immediate steps to transfer part of their funds to London. Some of these funds will find their way into first-class sterling bills of exchange, some into British Treasury bills, and some to deposit accounts at the London banks. Consequently, we have an invisible export of sterling bills, Treasury bills, and bankers' deposit receipts, balanced

by an inflow of short-term capital. There is an increased demand for sterling in other centres, combined with a decreased demand for foreign currency on the London Market.

In actual fact, of course, the transfer of such balances is merely a form of short-period loaning, so that this method is similar to the others in that the country endeavours to remedy its position by borrowing abroad. But its great advantages of immediate operation and extreme ease of application will be apparent to the reader who has followed the foregoing explanation of the methods employed by the banks for transferring their floating balances from one centre to another.

Similar, but reverse, action may be taken by the central bank when the symptoms indicate that a nation has accumulated a heavy favourable balance, and it is desired to discourage the inflow of gold and the expansion of credit. The central bank lowers its rate of discount with the object of encouraging the outflow of short-term balances.

The Transfer of Balances Largely Replaces Gold Movements.—We arrive, therefore, at several most important conclusions which are unfortunately not always clearly grasped at the present time. It is apparent, in the first place, that movements between the world's financial centres of large floating balances seeking remunerative employment exercise a vital influence on the rates of exchange, both in the short and in the long period. In the short period, the efforts of the exchange dealers to keep their books "all square", combined with the activities of the banks in issuing finance bills, conducting arbitrage operations and dealing in forwards, tend to the adjustment of daily demand and supply and so minimise fluctuations. At the same time, very considerable fluctuations may be engendered by the action of the banks in moving their liquid funds from one centre to another. In the long run, this movement of funds, in response to a raised or lowered discount rate, equilibrates a nation's international accounts by effecting an adjustment between her total debits and total credits.

To a very large extent, the transfer of floating balances takes the place of the movement of gold. As a result, the use of gold is economised at a time when such economy is imperative, first, because of the world-wide demand for the metal for reserve purposes, and, secondly, because of the present one-sided distribution of gold through the accumulation of about one-half of the available supply in the United States. Furthermore, the transfer of funds in place of the

transfer of gold is quicker, safer and more economical. The movement of credit balances involves no risk of loss, no loss of interest, and practically no expense, while it eliminates the loss through abrasion, etc., which takes place on a transfer of gold.

Thus we may say that the maintenance of the gold standard in several countries to-day depends essentially on the existence of these large sums of liquid funds, and on the fact that they move very easily from one centre to another, in quick response to central bank policy as epitomised in changes in the ruling rate of discount.

The Balance of Trade Theory is no Longer Tenable—If the foregoing analysis of the position is in accordance with the facts, we must admit to have reached a point in our explanation of the theory of foreign exchange which is in almost direct opposition to the view which has so long been held that the rate of exchange between any two countries is mainly determined by the balance of indebtedness *on trade account* between those countries.

We can admit that the daily or hourly rate of exchange is influenced by the relationship between the demand for and supply of foreign currency required to make international payments on trade account. But that influence is only one of many, and is liable to be neutralised by one or more of several other factors. Moreover, the influence attributable to trade settlements at any particular time bears only a slight relationship to the *current* balance of trade indebtedness between the countries concerned. It has no relationship whatsoever to the *aggregate* balance of indebtedness outstanding or accumulating between one country and another, or between one country and the rest of the world.

We can admit that the balance of indebtedness, either aggregate or current, may materially influence the exchanges of a nation which makes no effort to maintain the gold standard or other form of stable currency. Such a country may go on incurring debt so long as other nations are willing to give her credit, and if no attempt is made to provide for the repayment of that debt, the exchanges will be adversely affected by its existence through the failure and collapse of credit. The currency will depreciate on the international market and the fall will be accentuated by growing feelings of distrust and by apprehension as to the future of the country. As a result, the purchasing-power parity of the currency in terms of sounder currencies will tend not only to fall but to fluctuate markedly with every change in the political and credit position. Unless the position is rectified by drastic action, trade will be severely handicapped, and both the currency and exchange

situations will go from bad to worse. But, even in such a case, there is no *direct* correlation between the prevailing rates and the indebtedness outstanding: the balance of indebtedness does not and cannot in any sense *determine* the rate of exchange between the country concerned and any other country.

Conditions are entirely different in the case of a country which seeks to maintain the gold standard. Such a country cannot have a consistent balance of indebtedness, either favourable or otherwise. Equilibrium between her payments and her receipts is bound to be achieved. There must be conditions of daily or short-period equilibrium as well as conditions of more permanent equilibrium, such as are implied by a balancing of the nation's international accounts. Such fluctuations in her exchanges as do occur must be confined within the limits of the gold points. Consequently, there is little, if any, room for the operation of the influence of a balance of indebtedness, and if that influence does tend to be serious, forces automatically coming into play will bring about a position of better equilibrium between credits and debits. The necessity for corrective action is indicated by the position of the exchanges, by the outflow of gold and by other factors of unmistakable significance. These tend to bring about a movement of resources, whether of gold, bankers' balances or goods. If for any reason these forces do not operate, or if they operate too slowly, then artificial stimulus is applied through action by the central bank or other responsible authority.

"The Belgian negative balance is covered in part by War Reparations receipts, in part by foreign loans and credits and in part by a number of miscellaneous receipts, such as earnings on transit traffic, foreign tourists' expenditure, etc.; that of Denmark and Norway mainly by shipping freights and similar charges, that of Greece by foreign borrowings, shipping earnings and emigrants' remittances; that of the Irish Free State by the positive balance of interest and dividends and by emigrants' remittances, that of Italy by the receipts from tourists and remittances from Italians abroad, that of Latvia by capital borrowings, emigrants' remittances, transport and shipping earnings. The main invisible factors on the debit side of the Czechoslovak account are interest and dividends paid and new short-term lendings." *

How Britain's International Account is Balanced.—In illustration

* *Memorandum on International Trade and Balances of Payments, 1913-1927* (League of Nations, Geneva).

of the argument in the foregoing paragraphs we may refer again to the Board of Trade figures of Britain's estimated annual receipts and payments. These figures for 1929 and eight previous years are compared in the following statement with the totals of overseas capital issues on the London Money Market in the same years:—

Britain's Annual Estimated Balance of Indebtedness, 1928 and Eight Previous Years, Compared with the Figures of the Annual Issues of Capital on the London Market.

(In Millions of Pounds)

Particulars	1910	1913	1920	1922	1923	1924	1926	1927	1928
Excess of Imports over Exports of Goods and Bullion (i.e., balance of <i>visible</i> trade)	159	158	343	171	203	341	475	390	359
Estimated Net Receipts for "Invisible" Exports—									
Shipping Income(a)	90	94	340	110	115	130	120	140	130
Investment Income	187	210	200	175	150	185	285	285	285
Short Interest and Commissions	25	25	40	30	30	40	60	63	65
Other Items	10	10	15	10	10	15	19	16	28
Total Receipts	312	339	505	325	305	370	484	504	508
Estimated Net Favourable Balance Available for Overseas Investment	153	181	252	154	102	29	9	114	149
Year's Overseas Issues on London Market	207	198	60	135	136	134	112	139	113

(a) Including disbursements by foreign ships in British ports.

It will be observed that for most years there is a considerable difference (usually a deficit) between the estimated total of our balance on current account, i.e., the surplus estimated to result from each year's international revenue transactions, and the amount invested by this country abroad as disclosed by the total of overseas issues on the London Money Market. The discrepancies are no doubt attributable, in part at least, to the admitted inaccuracy of the estimates, and to the fact that the Board of Trade figures doubtless err on the conservative side. Part of the difference can be accounted for by the fact that the Board of Trade figures take no account of the *net* payments due to Britain in respect of capital and revenue receipts from private businesses conducted by Britishers in other countries, nor for *net* sinking fund payments * made to this country in connection with her overseas investments. A further part of the difference is doubtless

* Sir Robert Kindersley estimated this item for 1927 at £34 millions.

due to the fact that foreign borrowings in London are to some extent offset by British borrowings overseas, and that they are to some extent subscribed from foreign, and especially American, sources.

Other possible explanations are that the amounts borrowed by foreign nationals from the London Capital Market are not necessarily transferred from this country during the years in which the issues are made. In fact, some of the funds so made available may have been met already by exports of goods, while some, again, may not be taken in goods or services for some time, but may merely be left on deposit in London. In other words, the issues may represent the creation of credits to cover debts already owing, or to be utilised for payments in future years.

But all these factors together can scarcely account for such wide discrepancies between the figures as those for 1920, 1924 and 1926. In 1920 we appeared to have loaned only about one-quarter of the total amount which we had available, whereas the figures for 1924 and 1926 indicate that we had overlent to the extent of some £105 millions. Clearly, the accounts must have balanced somehow, certainly more so in 1926, when we were once again on the gold standard, than in 1920, when conditions throughout the world were still most unsettled. The general stability of our exchanges in recent years is a guarantee that equilibrium is being consistently attained in some way.

Now if our interpretation of the theory underlying international balances is correct, the explanation lies in the fact that our international account is balanced by an increase or decrease of foreign investment in sterling bills and by the movement in and out of London of short-term funds. When we are in deficit, as was the case in 1924 and 1926, we encourage foreign purchases of London bills and borrow short-term balances from other countries. On the other hand, when we have a balance on the right side, we increase our short-term balances abroad, permit those already with us to be withdrawn, and lessen the attractiveness of sterling bills to the foreign investor. Thus permanent equilibrium in our international balance of payments is achieved by modifications in the relative totals of our invisible imports and exports of capital securities and short-term investments.

We may conclude this analysis with the observation that the method of equilibrating our international accounts by attracting short-term balances to London is not without some element of danger. Indeed, Sir Josiah Stamp has characterised the position as "unstable and treacherous." It certainly is one which might prove most awkward and embarrassing, increasing the sensitiveness of our exchange posi-

tion, more especially in relation to monetary conditions in the United States. Moreover, even the maintenance of a relatively high interest level is no guarantee against sudden heavy withdrawals, as has been proved on several occasions during recent years, and in particular during 1928-9, when the Bank of France apparently without warning removed considerable sums previously accumulated in London, and thus adversely affected the sterling exchanges.

There is the further danger that the safeguarding of our gold reserves may ultimately depend far too greatly upon the maintenance of foreign balances in London, while their retention may be achieved only at the cost of maintaining interest rates at a level which will impose an undue burden on our industries. But these are risks which are apparently inevitable if Britain is to continue her rôle as the world's leading banker and financier.

A Recent Illustration of the Strength of the Investment Demand.—The international importance of London as a centre for the investment of foreign balances was strikingly exemplified in relation to Britain's efforts to restore the gold standard in the years following the War. One of the principal factors making possible our return to gold was the considerable investment of American funds on the London market. In the early months of 1924 the weakness of the dollar-sterling exchange occasioned much uneasiness among British financiers, who naturally anticipated a still further fall under the weight of the usual autumnal demand for dollars.

The Bank of England, however, was quite cognisant of the position, and took full advantage of the attractiveness of the London market to foreign investors in order to induce the transfer of funds—and particularly American funds—to London. Consequently, arrangements were made between the banking authorities to maintain the London market rate of discount at a higher level than that prevailing in New York. The results were entirely as anticipated. American lenders transferred their disposable funds to the more profitable British market, while borrowers in the States found it more to their advantage to satisfy their requirements in New York than in London. Furthermore, in accordance with the explanation given in the last chapter, British commercial bills, which under easier monetary conditions would be sent here before maturity for discount, were discounted in New York and retained in that centre until maturity.

This transfer of funds to London and the holding back of sterling bills in New York naturally helped the exchanges in the way already described in earlier pages, while the improving exchanges offered

still greater inducement for the purchase of sterling in the form of bills or of balances with London banks.

Largely by these means the demand for sterling in the latter months of 1924 was so persistent as to exceed the normal autumnal demand for dollars, and consequently the New York-London rate considerably improved in the direction of the parity. Indeed, by this time the strength of the exchange had given rise to great hopes that the gold standard would soon be resumed in this country, and in February, 1925, the Bank of England took the further step of raising its rates to the comparatively high level of 5 %. By agreement between the leading bankers, the market rates were also maintained at a high level, and the exchange was again strongly influenced in our favour by the consequent transfer of American balances to London. This raising of the London rates for money proved so effective that, by May, 1925, the pound sterling was once again brought to the par of exchange with the gold dollar, a position which it had not held since the outbreak of the Great War.

The International Accounts of the United States of America.—As a result of the War, the United States has ranged herself alongside Britain as a great creditor nation, annually loaning or investing enormous sums in other countries throughout the world. Apart from the fact that she regularly exports to other countries more than she imports, the annual balance of invisible payments on current account, mainly in respect of income on foreign investment, is computed to be heavily in her favour. So much so, that until recently the annual total of her investment overseas was not sufficient to counterbalance the heavy favourable balance of payments, and, as a result, America during the years 1914–1925 accumulated vast reserves of gold. Indeed, the inflow of gold reached such proportions that the Federal Reserve authorities, in order to maintain stability of internal prices, and unable to count upon increased imports of goods, had to take action to prevent the heavy gold imports from bringing about an automatic adjustment to a more permanent equilibrium.

According to the theory which we have examined, the usual effect of such imports of gold would be to lower the value of American money (which is based on gold) and send up the prices of goods. Imports of goods would therefore tend to be encouraged and commodity exports discouraged, while gold would tend to flow outwards. But the authorities counter-acted or neutralised this tendency by storing the metal away and preventing its use as a basis for the expansion of credit and the forcing up of prices. In other words, they *sterilised* the

additions to their gold reserves, and thus prevented them from effecting the adjustment which would otherwise inevitably have taken place. Only by resorting to special measures of this kind could the United States resist the operation of the economic forces which we have discussed, and continue for a considerable period of time to receive far more than they were called upon to pay.

It is obvious that such a position could not continue indefinitely. The countries which had to pay for American exports with gold or by raising loans and establishing credits in New York must ultimately have had to find some other means of payment. On her part, America could not continue indefinitely to absorb the greater part of the world's gold and extend unlimited credit to other nations.

Clearly, some more permanent equilibrium in her balance of payments was required and to effect this she could resort to one or some of four alternatives:—

- (a) Decrease her visible exports of goods;
- (b) Decrease her invisible exports on account of interest and services rendered;
- (c) Increase her visible imports of goods by buying more from other countries;
- (d) Increase her invisible imports by lending more abroad.

The first two methods could not be applied in the face of her great efforts to capture overseas markets both in respect of goods and services. The third method was and is rendered well-nigh impossible by reason of the high tariff barrier maintained in the States, and because the country is practically self-supporting in spite of the very high standard of living. The only method remaining was to increase capital investment abroad, and this is in fact being resorted to at present to an enormous extent.

Considerable sums are being transferred overseas both in the form of public issues and on private account, either for long-term investment or for short periods. The majority of the short-term transfers of funds have been made to Britain and Germany, and it has been estimated that floating balances of an average total of over £80,000,000, or roundly \$400,000,000, are left in this country, while short term credits arranged through German banks are considered to represent somewhere about \$600,000,000, or a total in all of something like \$1,000,000,000. So far as long-term investment is concerned, the *New York Journal of Commerce* gave the total foreign capital

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issues in the United States during 1927 as being, in round figures, \$1,576,000,000—say, £325,000,000

These figures are considerably in excess of the estimated available balance on current account, and some experts consider that the discrepancy is accounted for by huge investment, for both long and short periods, made by foreigners in the States * On the other hand, the American authority, Dr Max Winkler, in his annual review of United States foreign investment, published in the Spring of 1929, calculates that the American international balance-sheet over the period 1914–28 is “all square,” as, of course, it must ultimately be In the following observation, he lends strong support to the argument in this chapter —

“It is more than a mere coincidence that American investments abroad, both political and commercial, made during the period 1914–28 almost exactly correspond to the aggregate excess of our exports over imports for the same period In other words, had we not invested abroad, we might not be able to dispose of our surplus production, nor would the rest of the world have been able to pay for such a surplus ”

This statement, of course, disregards the possible alternative that the United States could admit more foreign goods, and the question arises Can the United States, without giving greater encouragement to the inflow of foreign goods, continue this vast investment of resources overseas? Are the nations of the world likely to continue to increase their capital indebtedness to the United States when that country, by the maintenance of an almost insuperable tariff barrier, persists in excluding their goods— the only form in which payments of interest on the loans and repayments of capital can ultimately be made? The instability of the position was recently well stated by *The Economist* †. “To lend money to all the world and then to restrict imports is to invite all debtors to repudiate their obligations, by making it difficult and expensive for them to pay their debts by the only means by which international debts can finally be paid, namely, by the trade of goods and services ”

* See “The British Balance of Trade,” J. M. Keynes, *Economic Journal*, December, 1927.

† *Free Trade Supplement*, April, 1929

CHAPTER XI

THE LONDON MONEY AND BULLION MARKETS

AN attempt was made in the preceding chapter to explain the vital importance in the modern world of the rates of discount fixed by the central banks in the various countries with the object of regulating internal credit and facilitating the balancing of international accounts. In the present chapter it is proposed to consider briefly the organisation and structure of the London Money Market, with a view to explaining how the control of the central bank in our own country is attained and made effective

The London Money Market.—There is probably no more important nor more highly organised centre of human activity than the intangible entity known as the “London Money Market”, yet it is practically impossible to give any precise definition either of the present scope of its activities or of the sphere of its operations. Whatever the “market” may have been in the past, it has now no meeting place, while its modern activities are limitless both in distance and time. It can best be defined as the sphere of operations of the bankers, brokers, discount houses and financiers in the City of London, who deal in money and credit. It connotes the dealers and dealings in the closely knit organisation, centred round the Bank of England, whereby those who desire to borrow are brought into contact with those who are able to lend. Although it is essentially a London organisation, its operations extend to practically every corner of the civilised world, and its influence is felt wherever men trade.

By universal consent, the London Money Market stands pre-eminent above all others, not only by virtue of its wealth, efficiency and sound organisation, but also because of the unrivalled experience and recognised capacity of its members. No one would deny the immense value of its services in promoting trade, encouraging enterprise, and financing the wide gap between production and consumption throughout the world. Its importance to our own country can scarcely be exaggerated. It has enabled Britain to attain and maintain her position as the world's

foremost financial centre, while it represents an investment which regularly brings her an income of the magnitude of more than £60 millions sterling per annum.

While it is correct to say that the Market deals in "money" and "capital", it should be borne in mind that both these terms have widely different applications. The "money" which forms the *alpha* and *omega* of the London Market is not actual cash—which is rarely seen on the Money Market proper—but credit money in its infinite variety of forms: bills, cheques, notes, promises to pay, bank balances and securities.

In the same way, the term "capital" is invariably applied in the Money Market proper to mean short-term or liquid capital which is immediately available to extinguish debt, whereas in the specialised section of the Money Market known as the *Capital Market* (which is centralised round the Stock Exchange), the term may include, in addition to short-term capital, monetary capital which is made available by long-term loans for productive use over lengthy periods.

But the primary and all-important function of the London Money Market is to deal in loans for short periods. Its special business is to organise and regulate the demand for and supply of short-term capital, and to fix the rate of interest at which short-term borrowers shall be accommodated by lenders. This rate of interest on "market money", i.e., money that will immediately extinguish obligations, is termed *discount*, and the prevailing rate of discount in the London Money Market has an important influence on the rates of interest for money ruling in the other monetary centres of the world.

Lenders on the London Money Market.—By far the largest lenders on the Market are the mammoth banking institutions known as the "Big Five"—the Midland, Lloyds, Barclays, the Westminster and the National Provincial. Closely following these are the other important clearing banks, such as Martins and Glyn Mills, together with the Dominion, Colonial and foreign banks having offices or agencies in London.

The funds loaned by the banks are obtained mainly from the deposits of their customers. Much of the money they receive is invested in Government and other securities; much more is used in granting loans and advances to customers. A proportion of their funds is retained in cash to meet everyday demands, and a large amount is left on current account at the Bank of England—the bankers' bank. Beyond all this, the banks have a floating surplus of money, described in their balance sheets as "*Money at Call or Short Notice*",

which they lend out in the Money Market at low interest for short periods—overnight, from day to day, or for seven days. Most of this money—totalling probably upwards of £130 millions at the present time—is repayable at call, i.e., on demand or at specified short notice, and is, therefore, quickly available to meet extraordinary emergencies.

Apart from the purely banking business of lending and borrowing, the banks also undertake many of the functions performed by more specialised organisations. They transact the bulk of present-day foreign exchange operations. They undertake acceptance business, grant loans against goods entering into international trade, provide short-term credit for the bill brokers and discount houses, and assist the underwriters and issuing houses in raising capital from the investing public.

Considerable sums are also lent on the market by London discount houses, investment firms, insurance companies and underwriters, while still further sums are remuneratively employed in the City, through the intermediary of London agents and correspondents, by banks, financial houses and commercial organisations in all the other countries of the world.

Borrowers on the London Money Market.—In ordinary circumstances, the chief Market borrowers of short-term funds are the bill-broking agencies who together comprise the *Discount Market*. These include the three world-renowned discount houses, Alexander's Discount Co., Ltd., the Union Discount Co. of London, Ltd., and the National Discount Co., Ltd., together with a number of bill brokers proper, constituted as private companies or private partnerships. Although the three discount companies employ considerable capital of their own in their businesses, and also accept funds at interest from various sources, by far the greater part of the operations of the Discount Market are conducted on funds borrowed for varying periods on the cheapest possible terms from the banks and other financial institutions. These funds are employed in buying (i.e., discounting) and selling bills of exchange and other short-term securities, mainly British Government Treasury bills.

In another class we find the stock brokers and stock exchange dealers who borrow for the purpose of dealing in securities, and especially for carrying over transactions from one settlement to another.

Since the Great War, the British Government has established itself as the largest borrower in the Market, the aggregate of its temporary borrowings being now far in excess of the whole of the Market's short-term loans to other borrowers.

Finally, there are the Dominion, Colonial and foreign Governments, the world-famous accepting houses, such as Brown Shipley & Co., Kleinworts and Frederick Huth & Co., and the merchant bankers, such as Rothschilds, Hambros, Lazards and Schroeders—all of which invest, or borrow, large sums on the Market, and exert a strong influence on the prevailing rates of interest charged for the use of capital.

The development of the accepting houses is a feature peculiar to the London financial organisation, and accounts in no small degree for London's international monetary superiority over such centres as New York or Amsterdam. Nowadays, the accepting houses are private banking firms of first-class credit who undertake to accept bills drawn upon them under arrangement, in return for an acceptance commission. But the term "merchant bankers", sometimes applied to them, indicates their origin in the ranks of merchant traders of established reputation, who found themselves able to develop a lucrative business by lending their names on the bills of less well-known firms. On the reputation of the London accepting houses and accepting banks depends the fact that sterling bills are used to finance not only our own import and export trade, but also direct trade between foreign countries in goods which never touch our shores.

The Bank of England.—Occupying the pivotal position in the Market, maintaining a close watch on all its operations and intervening when necessary as a lender or as a borrower, is the Bank of England, proudly and honourably distinguished in this country as *The Bank*. As the corner-stone of our English banking system and the foremost banking institution in the world, the Bank of England naturally exercises a most profound influence on the whole of the Market's business. And this, not so much by virtue of legal authority and statutory enactment, as by an informal, characteristically British reliance on a moral leadership established by custom and universal consent.

For, in spite of appearances to the contrary, the Bank of England is entirely a private concern, managed for the benefit of its stockholders by a Court of Directors consisting mainly of merchant bankers chosen from the City. But inasmuch as it transacts the financial business of the State and is in the most intimate relationship with all the other banks of the country, the Bank of England has certain duties and heavy responsibilities thrust upon its shoulders, which are unshared by the other banks. Although most intimately connected with the Money Market, the Bank is not usually regarded as part of it, and its interests are often opposed to those of the brokers and others in the Market outside.

The Bank performs all the usual functions of a bank, accepting money on current account from its various customers, and employing the funds in discounting bills, and in making advances against security. In all these particulars, it is in competition with the banks and dealers in the open market, who in normal times are able to outbid their wealthier but less favourably situated rival, and thereby to attract to themselves the bulk of the usual business undertaken by London bankers and dealers. In one important respect, however, the Bank has the ascendancy, since it now enjoys the monopoly in England and Wales of the privilege of issuing bank notes, while its notes are now the only form of legal tender paper currency in Great Britain and Northern Ireland.

Security on the Money Market.—The security taken on the London Money Market by the banks and other lenders consists of parcels of bills of exchange and short-dated Government Securities, such as Treasury Bills, National War Bonds, Treasury Bonds and Exchequer Bonds. These change hands so frequently and, as it were, “float” about the Market from one person or firm to another, that they are in market parlance referred to as “floaters”. All of them have the common characteristics of absolute security and free realisability, but first-class bills of exchange, of not more than three months to run, possess such advantages in these respects that they form the *ne plus ultra* of all forms of short-term security on the London Money Market. They are particularly in demand by banks and other financial houses who prefer not to tie up for longer than three months such liquid funds as they set apart for short-term investment. For these reasons, probably as much as 90 per cent. of the loans granted by the banks to the Discount Market are secured by such bills and acceptances, and, in normal circumstances, the rate of discount on first-class three months’ bills is universally regarded as the real criterion of monetary conditions in the City.

The bills thus dealt in come to the Market chiefly through the foreign and colonial banks, merchant banks and accepting houses. Many of them are purchased at foreign ports by the agencies and correspondents of these institutions, while many others are drawn on the London accepting houses and banks under acceptance credits in respect of goods moving, not only in and out of this country, but also directly between other countries of the world. But not all the bills which come on the Market are obtained from these agencies. Many of them reach the smaller London banks and discount houses from correspondents throughout this country and abroad. Some are

obtained by the ordinary brokers and discount houses from *running brokers*, who, as their name implies, seek bills wherever they can be found and pass them on to the brokers proper, in return for a small commission for their services as intermediaries.

As a rule, the security of the names of the accepting houses and banks is in itself sufficient to guarantee the worth of the bills offered by the Discount Market as cover for its loans, while, in addition to this, the lending banks are protected by the indorsement of the borrower on each instrument deposited by him. But the main strength of the security afforded by these bills lies in the fact that the average bill broker of experience has an unequalled knowledge of the standing and worth of the names which usually appear on London paper, and, by his specialisation in the art which cultivates and matures that knowledge, he relieves the banks of much burdensome detail and justifies his claim to be an indispensable element of the London money machine.

Lending and Borrowing on the Market.—The method by which the vast loans on the London Money Market are given and taken is characteristically informal. Each morning, shortly after ten o'clock, the silk-hatted brokers make a round of the offices of the managers of the Overseas banks and merchant bankers, with the object of purchasing such bills as the banks wish to sell. The parties discuss the state of the Market and agree upon the rates which shall apply to the bills on offer. Thereupon, these are purchased, i.e., discounted, by the broker and are handed to him in return for his cheque.

After sorting the bills according to their respective maturities, the broker visits the sanctums of the managers of the large banks with whom he is in constant touch, and determines from them what funds they have available for loan to the Market. Some proportion of these funds will be offered for a week or longer, whereas the remainder will be available only from one day to the next, or merely "overnight". Money in the former category is more or less "*fixed*", i.e., its amount does not vary greatly and it is almost automatically renewed. Day to day and overnight* money is, however, much more elusive, moving about the Market from one lender to another mainly according to the current demands on the banks for cash. Hence, it must be sought out by the shrewd broker wherever it happens to be obtainable at the moment. One result of this is that the rates charged for weekly funds do not vary greatly as between one lender and another, whereas the lender who is able to provide a fair amount of day to day or

* "Overnight" money must be called or renewed before 12 noon on the day following that on which it was lent.

overnight money naturally holds out for as high a rate as he can get.

All such matters necessarily enter into the discussion between the bank manager and the broker who is anxious to raise funds, but, ultimately, the rates are arranged on a mutually satisfactory basis, and a parcel of bills passes from the broker to the bank as security for a short-term loan which the broker will repay or renew, as the case may be, at the expiration of an agreed period.

There are times when floating money is so scarce in the open market that the brokers are compelled to borrow from the Bank of England, which, as the central reservoir of credit, is always ready to grant advances against approved bills of exchange or other forms of security. In these circumstances, the Market is said to be "*in the Bank*", and it is at such times that the Bank is able, by dictating its own terms for granting the required accommodation, to force the Market to follow its lead in the matter of credit policy.

Speaking generally, both brokers and discount houses make their profits from the differences between the rates at which they buy bills and the rates at which they borrow their working funds. In neither case is their decision unfettered. The rate at which the broker borrows from the banks or other depositors can rarely fall below the rate at which the banks themselves borrow from *their* depositors,* whilst the rate at which the broker purchases first-class bills from the overseas banks cannot be higher than the Bank rate, i.e., the rate at which the Bank of England itself is prepared to discount bills for the Market. And since the rates of discount on the Market vary frequently, the success of the broker's business necessarily depends on the care with which he watches and anticipates changes in the rates, and the manner in which he manipulates his funds so as to secure the highest return.

The Importance of the Discount Market.—The London Money Market is frequently likened to a great reservoir of liquid capital, replenished from day to day from the surplus funds which accumulate in the hands of the banks, and as quickly exhausted by the funds transferred through the discount houses and bill brokers to those various agencies which bring bills of exchange to the Market to be turned into cash. The discount houses and bill brokers thus contribute relatively little to the enormous volume of capital which passes through their hands, and although the proportion which accrues to them as profit for their services may seem at times to be very low, the

* "Overnight" or day to day money may be lent at very low rates when market supplies of funds are plentiful.

aggregate of the operations is sufficiently large to ensure for them a very comfortable living.

Mr. Otto Kahn, the well-known American banker, once stated that "the requisite for a great financial centre is a healthy, active and regular discount market". London has been fortunate in the fact that her Discount Market has established itself as second to none, and that it remains supreme in spite of the stress of years of unparalleled financial upheaval. The brokers and discount houses provide the banks with a first-class short-term liquid investment for their floating supplies of money. Both the amount and date or dates of repayment are arranged to suit the bank's own special requirements, enabling it to increase or decrease its cash holdings according to its own convenience.

The Discount Market places the funds so borrowed at the disposal of the overseas banks and other agencies from whom the bills are obtained by purchase or discount. In brief, it converts the short-term credit obtained from the banks into long-term credit, of anything from six weeks to three months, transferred to the agencies supplying the bills. Both the investment and the repayment are conducted with the greatest ease and informality, yet with almost absolute reliance on the one side and the utmost confidence on the other.

By its creation of a free market for good bills and its insistence on a high degree of business integrity, combined with the fact that the sterling bill can be at any time converted into gold in London, the Discount Market has contributed in no small degree to the world-wide acceptability and negotiability of the bill of exchange on London. Moreover, the market organisation is so efficient and competition so keen, that the rates charged for discounting the acceptances of well-known English houses are much lower than the rates charged on ordinary commercial acceptances, and the difference is usually sufficient to recoup the trader for the cost of arranging the acceptance facilities.

The Bank of England's Note Issue.—By virtue of the provisions of the Currency and Bank Notes Act, 1928, the Treasury notes issued as a War emergency measure were superseded by the £1 and 10s. notes now issued by the Bank, and these notes were made full legal tender in England, Wales, Scotland and Northern Ireland for payment of any amount, including the payment or redemption of the Bank's own notes of higher denomination. The latter, i.e., Bank of England notes of £5 and upwards, are legal tender in England and Wales (but not in Scotland and Northern Ireland) for payment of all sums of £5 and upwards.

This monopoly of the right to issue notes adds greatly to the

prestige of the Bank of England, but, in return for the privilege, the Bank has to conform to certain legal regulations laid down in the Bank Charter Act, 1844, and in the Currency and Bank Notes Act, 1928. The former Act laid down conditions under which the Bank's powers and constitution were determined for eighty-four years prior to 1928, when the later Act introduced certain modifications in the existing arrangements to give effect to the decision of the Government to transfer to the control of the Bank of England the £1 and 10s. notes previously issued by the Treasury.

For many years prior to the Great War, the Bank of England note was fully convertible into gold coin or bullion on demand, and, so faithfully was this obligation carried out, that the Bank's notes came to be regarded, not only in this country but also in other countries, as being "as good as gold". Even four years of unprecedented financial strain during the War, followed by seven more years of painful plodding on the return path to the gold standard, failed to affect the world-wide acceptability of the Bank of England note, and this in spite of the fact that it is even yet not as fully convertible into gold as it once was.

By virtue of the provisions of the two Acts referred to, the position at the present time is that the Bank is permitted to issue notes to a fixed amount of £260,000,000, against a reserve consisting of first-class securities and an amount not exceeding £5,000,000 of silver coin or bullion. This is termed the "*fiduciary*" issue, to distinguish it from the remainder of the note issue which must be backed by gold in the Bank's vaults. The fiduciary issue cannot be increased without the sanction of the Treasury, and, if the excess lasts for more than six months, confirmation by Parliament is required. As will be observed from the Return on page 271, the gold holding is rather more than one-third of the total value of the notes in issue.

The Bank is bound to issue its notes in exchange for gold (i.e., to *buy* gold) at the rate of £3 17s. 9d. per ounce standard, eleven-twelfths fine, while it is compelled to issue gold in exchange for its notes (i.e., to *sell* gold) on demand at the rate of £3 17s. 10½d. per ounce *standard* (i.e., approximately 84/11½d. per ounce *fine*), so long as the amount demanded is not less than 400 oz. troy of fine gold—approximately £1,700.

The Gold Bullion Standard.—The practical effect of these provisions is that the Bank's notes are convertible into gold for export purposes only, and that gold is not available for internal circulation in this country. In other words, we have a *gold bullion standard* in place of the pre-war full gold standard under which gold sovereigns circulated

side by side with, and were freely interchangeable for, Bank of England notes.

The Bank may now meet internal demands for legal tender, not by issuing gold sovereigns as was the case in pre-war days, but by issuing its notes of smaller denomination. Its gold holdings are thus safeguarded for the vital purpose of maintaining our exchanges with other nations, and while the domestic use of gold is restricted, the country obtains the full benefit of the gold standard for external purposes. Gold exports of large amount necessary to redress adverse balances of indebtedness may freely be made, but small transactions are prevented by the enforcement of the minimum referred to. On the other hand, gold sent to us in payment of balances due is instantly convertible into legal tender on demand at the fixed price of 77s. 9d. per oz. standard, while the effect of the restriction that only the Bank can present gold to the Mint for coinage is that gold entering the country is diverted into the nation's central reserve instead of into domestic circulation in the form of newly coined sovereigns.

The Bank Return.—Since the Bank of England acts as banker for the State, and is also a bank of issue and the leading banking concern in the kingdom, it is only just that its financial position should be frequently disclosed. The Bank is, therefore, compelled by law to issue a weekly Return, in which the liabilities and assets of its two legally constituted departments, viz., the Issue Department and the Banking Department, are specified separately.

This statement, or "Return", as it is called, is issued on Thursdays after the Bank Court has been held, and is published next day in the principal newspapers. The form of the Return remained unchanged from 1844 to 1928, when it was slightly modified on the coming into operation of the provisions of the Currency and Bank Notes Act. A specimen of its present form is shown on page 271.

The Bank Return is of very great importance to our bankers and financiers. This is partly due to the fact that the gold coin and bullion held by the Bank in the Issue Department represents practically the whole of the nation's stock of gold, and is liable in normal circumstances to be drawn upon by any one in this country or abroad, who possesses a sufficient amount of the Bank's notes, which, as we have seen, are promises to pay gold. At the date of the Return the Bank's holding of Gold Coin and Bullion had fallen close to the figure of £150,000,000, which the Cunliffe Committee of 1918 considered to be a safe working *minimum* for the operation of the gold standard in this country.

The first item on the right-hand side of the statement, the *Government Debt*, has been unchanged since 1844. It represents the amount which the Bank had advanced to the King and Government up to that date, and was largely responsible for the various privileges accorded to the Bank during the 19th century. *Government Securities* and *Other Securities* are the items which fluctuate from time to time with changes in the Bank's fiduciary issue. The Government Securities held by the Issue Department are, of course, entirely independent of those held in the Banking Department (see below), and there is little doubt that, at the present time, much of them consist of Treasury

BANK OF ENGLAND

Return for Week ended Wednesday, 2nd January, 1929.

ISSUE DEPARTMENT.

	£		£
Notes Issued—		Government Debt	11,015,100
In Circulation	378,294,483	Other Government Securities ..	233,573,181
In Banking Department ..	34,828,856	Other Securities	10,175,611
		Silver Coin	5,236,108
		Amount of Fiduciary Issue ..	260,000,000
		Gold Coin and Bullion	153,123,339
	<u>£413,123,339</u>		<u>£413,123,339</u>

BANKING DEPARTMENT.

	£		£
Proprietors' Capital	14,533,000	Government Securities	62,636,855
Reserve	3,440,783	Other Securities—	
Public Deposits *	22,336,385	Discounts and Ad-	
Other Deposits—		vances	47,745,162
Bankers	84,016,042	Securities	16,962,554
Other Accounts	38,030,396		64,707,716
	122,046,438	Notes	34,828,856
7 Day and Other Bills	3,015	Gold and Silver Coin	206,194
	<u>£162,379,621</u>		<u>£162,379,621</u>

* Including Exchequer, Savings Banks, Commissioners of National Debt and Dividend Accounts.

bills, while Other Securities are likely to include first-class commercial bills of exchange, both in sterling and foreign currencies, which the Bank is now permitted to hold as part of its fiduciary backing.

From the standpoint of the Bank's stability, the most significant items appear in the Banking Department section of the Return. The left side shows the amounts which are due by the Bank to its shareholders and to its customers (including the Government); on the right side are shown the ways in which the Bank has invested the money it has borrowed. The item described as *Reserve* comprises the Bank's Reserve Fund, representing the accumulation of undivided profits since its formation, together with the balance of its current Profit and

Loss Account. In recent years, the Rest has never been allowed to fall below £3,000,000.

Public Deposits, as is explained by the footnote to the Return, include the balances held to the credit of the Government and related bodies. *Other Deposits* include, as indicated, the balances held by the Bank on behalf of other banks, together with the credit balances of all of its other customers. From the purely banking standpoint, these items are more in the nature of current account balances than deposits, since they are withdrawable on demand and no interest is allowed thereon by the Bank.

The item of *Bankers' Deposits* is, from several points of view, by far the most important in the Return. The figure includes the balances of all the London clearing banks, the other English joint stock and private banks, and the Scottish and Northern Irish banks. The balances of banks abroad, including those of foreign central banks, are doubtless comprised in the item "Other Accounts".

The importance of the figure of Bankers' Deposits lies, first, in the fact that the Bank's control of credit depends very largely on its power to induce fluctuations in the amount of these balances, which are regarded by the other banks as being to all intents and purposes as good as cash, and, therefore, capable of being used as a basis for an expansion of credit. Secondly, the level of Bankers' Deposits affords most valuable information to Money Market experts as to the likely course of monetary conditions in the near future.

A *high* level of these Deposits, taken in conjunction with other factors known to market men, may presage either conditions of ease owing to an excess accumulation of surplus funds by the banks, or it may presage stringency ahead because the banks are for some reason strengthening their reserves by calling in funds from the Market. If the high level of Bankers' Deposits coincides with a reduction in Public Deposits, it may indicate heavy Government disbursements (such as 5 % War Loan dividend payments), or it may be due to an excess of Treasury bill maturities over re-investments therein.

On the other hand, a *low* level of Bankers' Deposits may indicate that bankers, having no immediate apprehensions as to the course of monetary conditions, are employing their funds to the full on the open market, or it may afford evidence that floating money is in short supply and that conditions of stringency are ahead. Such conditions may arise when bank balances are being depleted by revenue payments, or when more market money is being re-invested in Treasury bills than is being received from maturities, in both of which cases Public Deposits

will, of course, be increased at the expense of Bankers' Deposits. Clearly, it is impossible to decide merely from the appearances of this item. As in the case of other items in the Return, its significance must be judged in conjunction with other portents before any accurate conclusion can be reached.

On the other side of the Return of the Banking Department, the first item, *Government Securities*, includes Ways and Means Advances to the Government, together with the Bank's holdings of Government stock, Treasury bills, etc. The total under this heading fluctuates markedly with operations undertaken by the Bank in pursuance of its open market policy, to be explained below, and also with Government financial operations. When the Government borrows from the Bank (e g, on Ways and Means advances) the Return shows an increase in Government Securities and either in Public Deposits or in Other Deposits. Public Deposits will show the increase until the borrowed funds are paid away by the Government, when the total of Other Deposits will rise. When the sums so borrowed are repaid, the fall in Government Securities will be accompanied by a decrease in Public Deposits or Other Deposits.

The total under the heading *Other Securities* represents the Bank's advances to its other customers, including the various members of the London Money Market and banks in other countries, together with the Bank's investments in securities other than British Government issues, including commercial bills. There is as yet no unanimity as to the difference between "Securities" and "Discounts and Advances",* but of one thing we may be certain, a rise in "Discounts and Advances", accompanied by an increase of approximately the same amount in Bankers' Deposits, is a sure sign that the Market is "in the Bank", while corresponding falls in these two items indicate repayments to the Bank of market loans.

The Bank Reserve.—The two items which appear last on the assets side of the weekly statement are the vital part of the Return, and constitute what is known as the *Bank's Reserve*. They are the

* *The Economist* definitely asserts that: "The important distinction between 'Discounts and Advances' and 'Securities' is this. When a bill is discounted at the Bank on the market's initiative, the Bank will rank it as a 'discount'. When the Bank buys bills on its own initiative as part of its open-market policy, it will rank as a 'security'—'Government', for Treasury bills, and 'other' for commercial bills."

Other authorities, however, consider that a bill discounted by the Bank for the Market, whether a Treasury bill or otherwise, will fall under the item "Discounts and Advances", and that Treasury bills will appear as Government securities only when purchased by the Bank on its own initiative.

only liquid assets available immediately to satisfy the demands of the Bank's creditors. All its other funds are locked up in securities, and the whole of the gold in the Issue Department is held against the bank notes which are in circulation, or which are held in the Banking Department. The £35 millions of notes held by this department can be exchanged for gold by presenting them to the Issue Department; but no more gold held by the Issue Department is available for the Bank's own purposes than this £35 millions; the rest is held to redeem the notes held by the general public and by other banks. The notes and gold held by the Banking Department are regarded as a Reserve, not only by the Bank of England, but also by the other banks in the country, owing to the peculiar position of the Bank of England as the holder of their surplus funds.

At the date of the Return reproduced here, the Reserve of £35 millions is held against liabilities on Public and Other Deposits totalling £144 millions, the whole of which is repayable on demand. The ratio between these two items,—universally referred to as "*the Proportion*" and standing at 24·3 % in the Return here given,—is of the utmost importance to the financial and commercial community, since it is, without doubt, the main factor determining the Bank's current credit policy.

The Bank of England—the Bankers' Bank.—In this country, an engagement to repay money is an undertaking to pay in legal tender on demand. Bankers who accept deposits from their customers do so on the understanding that they will repay the money in legal tender either on demand, or at notice, according to whether the money is placed on current account or on deposit. In practice they find that only a small proportion of the money is demanded at one time, and after apportioning a certain amount as till money to meet ordinary demands, employment is found for the surplus by investing it in various securities, and by using it in granting advances and loans.

All the banks find it convenient to leave a floating surplus of this money at the Bank of England, as a fluctuating balance on current account.* The aggregate amount so left is a large sum, the whole of which is treated by the bankers as equivalent to cash, capable of withdrawal whenever necessary in legal tender on demand. In spite of this, the Bank of England treats the banks as ordinary customers, and makes no special provision to meet any demands which may arise. On the other hand, the banks are accustomed to regard their balances

* The Bank allows no interest on these deposits, and insists on the maintenance of a minimum balance.

at the Bank of England as equivalent to actual cash, and always look to these balances to furnish them with any extra funds which they may require. If an extraordinary demand for money arises in any part of the country, it is passed on through the branches to the head offices of the banks, who fall back for supplies on their balances at the Bank of England. The Reserve of the Bank of England is therefore liable to be drawn upon at a moment's notice to supply the extra monetary requirements of the whole of the nation.

Demands for Currency.—In normal times, demands for money throughout the country are fairly steady, and it is possible for well-informed persons to gauge fairly accurately the requirements of the nation for ordinary purposes, such as for the payment of wages and salaries, and for making everyday purchases and payments. It is also possible to judge certain periodical demands, such as those which arise in the harvest season for the payment of extra wages, and in the holiday season, for spending on amusement and enjoyment. But extraordinary demands are more difficult of appraisal.

In ordinary circumstances, credit documents such as cheques, bills, and promissory notes form a large part of the media of exchange whereby commercial transactions are effected, and people accept these documents quite readily, in the belief that they will be paid in due course. The value of these instruments depends on the trust reposed in the parties to them. As soon, therefore, as any event or events occur which disturb credit, and make people apprehensive and suspicious, credit instruments fall into disfavour, and a heavy demand arises for legal tender. The banks take immediate steps to increase their till money, and to do that they draw on their funds at the Bank of England, and so deplete the Bank's Reserve.

Apart from obtaining Treasury sanction to increase its fiduciary issue, the Bank has no absolute means of preventing a serious drain of its Reserve as a result of such an extraordinary demand, but heavy internal demands of such a kind are not nearly as important as extraordinary demands from abroad. And when a heavy demand from overseas coincides with an extraordinary internal demand, the position may become extremely acute, and it is then that extreme protective measures are necessary.

A foreign demand usually arises when sterling has become relatively cheap in foreign centres, and the outgoing specie point from London has been reached. Foreign creditors then demand gold rather than sell their rights to sterling at a low figure. Gold may also be demanded for other purposes, as, for example, to increase the reserve of a foreign

central bank, to supply raw material for goldsmith's work in India; to provide the basis for a note issue in South America; or for currency in a new country which prefers to leave the trouble of coinage to us. In any case, the call usually falls on London as the world's leading gold market,—a position achieved largely by reason of the fact that it was for many years prior to the Great War the only *free* gold market in the world.

THE LONDON BULLION MARKET

The London Bullion Market is the specialised section of the London Money Market, where certain long-established firms of world-wide reputation conduct highly centralised operations in gold and silver bullion.

Britain's financial and industrial leadership, her steadfast championship of the gold standard and the fact that over one-half of the world's gold is produced in the British Empire, had the natural result of establishing London as the world's largest bullion market, to which a large part of the world's newly produced gold naturally gravitates for sale by auction. And while these factors contributed very materially to the maintenance of the prestige of the market, the existence of the market has been a very potent stimulus to the growth of London's financial supremacy.

Similar factors operated in the case of silver. Although very little of the world's silver supply comes from the British Empire, the fact that London established so high a reputation as a gold centre, together with Britain's intimate ties with the great silver countries of the East, led to the establishment and growth in London of an unrivalled silver market. As a result, practically the whole of the world's silver production is now marketed in London, her brokers fixing the prices of the metal for the whole world.

The London Gold Bullion Market.—All dealings in gold bullion on the London market are conducted by five long-established firms of bullion brokers, Messrs. N. M. Rothschild and Sons, Messrs. Mocatta and Goldsmid, Messrs. Pixley and Abell, Messrs. Samuel Montagu and Co., and Messrs. Sharpe and Wilkins,—all names which are "household words" in world financial circles. So high is the reputation of these firms and so efficient is their manner of business, that they are relied upon implicitly by banks and others who undertake dealings in gold and silver, not only for the actual conduct of such dealings, but also for the fixing of the price of gold bullion from day to day.

The bulk of the gold imported into this country comes from the mines of the Transvaal, which produce about one-half of the world's total yearly output. An arrangement first made during the Great War still exists under which that portion of the output of the South African producers which is marketed in London is ultimately sent to the Bank of England. The relatively small shipments of sovereigns, which frequently arrive from South Africa, are invariably passed at once to the Bank, but unrefined gold is first refined before it passes to the Bank through the hands of Messrs N. M. Rothschild and Sons, the principal selling agents for the South African producers. Although the minimum fineness accepted by the Bank is 99 per cent, most of the refined gold which is imported under this arrangement has a fineness of .5 per cent over this minimum.

The fixing of the daily price of gold bullion is characterised by a remarkable informality which is at once evidence of the reliance placed upon the dealers concerned as well as an indication of the extraordinary centralisation of the market. Every morning at 11.15 a.m. (10.45 a.m. on Saturdays) the various dealers assemble at the offices of Messrs Rothschild. Each broker then declares the quantity of bullion which he has either to buy or to sell, and, after some discussion and due consideration of the London Market position, i.e., the relation between the total supply thereon and the total demand, the price for the day is fixed by general consent. The most important market day is Tuesday, when the weekly Cape shipment which arrives in London on Monday is put up for sale.

The London price of gold is quoted in terms of shillings and pence per fine ounce troy, for gold in the form of fine bars or ingots of approximately 400 ounces. All dealings in gold bullion are for cash, since there is no forward market.

The Bullion Market quotes its prices for *fine* gold, and not for British *standard* gold (11/12ths fine), for two reasons. First, because a large proportion of its dealings are in the pure metal received from the refineries, and secondly, because standards of fineness are not the same throughout the world, and it is, therefore, most convenient that transactions on the leading market should be effected and prices quoted in terms universally applicable. On the other hand, the Bank of England prices are for British standard gold, 11/12ths fine, for the reason that the Bank ordinarily buys and sells gold in the form of sovereigns, which are, of course, of this standard fineness.

The fact that there exist in London legally fixed prices at which the Bank of England is obliged to buy and sell gold, necessarily imposes

limits in normal circumstances to the rise or fall in the price of gold in the open market. The Bank, it will be remembered, is obliged to buy gold at £3 17s. 9d. and to sell gold at £3 17s. 10½d., per standard ounce troy, 11/12ths fine. The equivalent prices per ounce of *fine* gold are approximately 84/10d. for buying, and 84/11½d. for selling, so that sellers are not likely to accept less in the open market than the former figure, while buyers who can obtain gold from the Bank are not likely to pay the bullion dealers more than the Bank's selling price.

Another result is that, so long as no abnormal circumstances exist which interfere with the Bank's power to buy and sell gold, variations in the price of gold on the open market are possible only because the Bank of England quotes slightly different prices for buying and selling. If these prices were identical, the market price could not differ from the Bank of England price. This is exemplified in the case of New York where gold is freely bought or sold by the United States Treasury at the fixed price of \$20·67183 per fine ounce, with the result that all transactions in gold in that centre are effected at this fixed price.

World Movements of Gold.—The disposal of gold on the Bullion Market will be more clearly understood if it is appreciated that movements of gold between the countries of the world may take place independently of the specie points, and that gold moves from one country to another for reasons other than that of rectifying, or of attempting to rectify, an adverse balance of indebtedness. International gold movements may, in fact, belong to one of several categories.

Marketing Movements.—First, we have the shipments of the metal from the sources of supply in the gold-mining countries to a gold bullion market as, for example, from South Africa or Australia to London. In this case, the gold is merely an ordinary commodity import and export, although it is one of such a special character that it is always given prominence in the trade returns of the nations concerned.

The flow of gold from the mining countries to the Bullion Market marks the first step in what we may call the economic life of the metal, and by far the greater part of it finds its way to London. There are two important reasons for this. In the first place, most of the world's gold is mined in new countries, such as South Africa and Australia, which have no highly organised bullion markets of their own, and must, therefore, market the metal abroad. And the London Bullion Market

is chosen because it stands pre-eminent for its extent and freedom, for the experience and reliability of its members, and for the fact that it attracts buyers and sellers from every part of the world.

In this first category we may also place movements of gold from the producing countries, or from the Bullion Market, to India or China, where the metal is sold in large quantities for hoarding purposes, as well as for personal adornment and ornamental uses.

Industrial Transfers.—The second class of gold movement comprises that in which gold, like any other metal, passes from one state to another purely as a raw material for industrial purposes, as, for example, gold imported into Switzerland for watch-case making, and into other countries for use in jewellery manufacture and dentistry. In this case, also, the transfer is regarded by the countries concerned merely as an ordinary trade import or export, although recorded specially in the trade returns.

Banking Operations.—In the third class are gold shipments which are essentially banking operations, as, for example, those made to strengthen or to establish the metallic reserves of a central bank or other bank in a gold standard country, or those which merely represent the transfer of part of a bank's gold balance or reserves from one centre to another. In such circumstances, gold may be moved whether the exchange position favours such a movement or not. The transfer takes place not purely as the result of the working of ordinary economic forces through the exchange rates, but essentially to meet the convenience or requirements of the bank responsible for the shipment. If a newly-established central bank must have gold to form a basis for its credit operations it will naturally obtain that gold even though the position of the exchanges may render the import a relatively unprofitable operation.

Exchange Operations—Finally, we have the most important class of all, comprising shipments of gold which take place when the exchange rates diverge so far from the mint parities as to render the movement of gold profitable. As a rule, this means that the outgoing specie point has been reached in one of the countries concerned, although it may be observed that, in actual practice, bankers may undertake the export of gold before the exchange actually reaches the outgoing specie point. In other words, the banks arrange the transfer of the metal *in anticipation* of the exchange movement.

The movement of gold to rectify the exchange position is of far greater importance from the point of view of internal credit and of the foreign exchanges than the so-called "artificial" transfers of gold

undertaken purely as banking operations. True, the difference is largely psychological. Dealers in floating capital on the various money markets dare not ignore the possibility that a restriction or expansion of credit may follow a movement of gold on exchange account, while exchange dealers in similar circumstances cannot ignore the likelihood of an improvement or relapse in the prevailing rates. But artificial transactions are not calculated to affect either the credit basis or the exchange position.

Once the metal has reached the Bullion Market it will move according to the strength of the demand in one of the other three categories. Since the bulk of the gold on offer on the Market emanates from the same source, there is little in the way of competition among sellers, but there is occasionally keen bidding from would-be buyers for the quantity available. As a rule, there is a fairly regular demand for industrial purposes and for shipment to India or other Eastern countries. But neither of these absorbs more than a small proportion of the weekly supply, most of which is taken, in ordinary circumstances, either by the Bank of England or by a so-called "*undisclosed*" buyer. The latter term is one which frequently occurs in the present-day Bullion Market reports, for the reason that the market never openly discloses the names of those who obtain the gold on offer. Frequently the term now stands for one or other of the foreign central banks, which, usually through the agency of the Bank of England, is in process of strengthening its gold reserves by purchases from the London market, or converting part of its sterling balances into gold bullion.

Generally speaking, the Bank of England automatically takes at its legally fixed buying price any balance of gold left over after the requirements of the trade, of India and of unknown buyers are satisfied. But it sometimes happens that a strong demand from other quarters prevents the Bank from obtaining any part of the supply, either for itself or for its customers. Such conditions arise mainly when one or other of the gold exchanges is so adverse to this country that exports of gold can profitably be undertaken, and bullion arbitrageurs are able to offer more than the Bank's statutory buying price. In such circumstances, the gold available is taken off the market by the highest bidder or bidders, but, for reasons already given, the price will not in ordinary circumstances exceed that at which the Bank itself is compelled to sell gold, viz, £3 17s 10½d. per ounce standard, or approximately £4 4s. 11½d. per ounce fine.

As a rule, the Bank does not bid for gold in competition with outside interests, but there is nothing to prevent the Bank of England

from buying gold at a price slightly in excess of the legal price at which it is obliged to take gold from other holders, and this it occasionally does in order to prevent gold from leaving London for export to other countries.

The Price of Gold and the Foreign Exchanges.—Subject to the limits which we have mentioned, there is necessarily an important connection between the price of gold in London and the sterling rates of exchange with the principal monetary centres. Other countries which seek to obtain gold from London must do so by the purchase of rights to sterling in the foreign exchange market, and by subsequently requiring payment of those rights in gold bullion. Clearly, then, a rate of exchange which is *favourable* to the foreign buyer of sterling will enable him, *without extra cost to himself*, to pay more sterling for the gold which he requires than he would do if the rate of exchange were *unfavourable* to him. Hence, it may be stated that, as a general rule, the price of gold on the London market *tends to fall when the foreign exchanges move in favour of this country, and tends to rise when the foreign exchanges move against London* and in favour of other monetary centres which are active buyers of London gold.

This relationship between the rates of exchange and the London market price for gold was especially noticeable during the Great War when the Bank of England was restrained from selling gold for export, and such gold as was obtained from London had to be purchased in the open market at the prevailing price. That price, being measured in terms of our practically inconvertible and depreciated currency, was naturally considerably in excess of the Bank of England prices under the gold standard. Indeed, the excess of the then prevailing market price over the Bank of England's normal selling price was a reliable index of the extent of the depreciation of the British pound sterling, and was proportionately in the same ratio as the depreciation of the London–New York exchange from the Mint parity. In other words, the fact that New York was for some years the only free gold centre in the world caused the price of gold on the London Market to fluctuate in proportion to the premium on the dollar in London as indicated by the depreciation of the New York–London exchange. Thus, what is known as the “*American parity price*” for gold on the London market could be calculated by increasing the Bank of England's normal selling price in proportion to the premium on the dollar in London as indicated by the New York exchange.

On August 5, 1921, the New York sight exchange stood at \$3·6075, whilst the price of fine gold in London was 114s. 2d. per oz.

The relationship between the two is expressed arithmetically as follows:—

$$\frac{\text{Prevailing Rate } 3\cdot6075}{\text{Mint Par } 4\cdot8665} = \frac{\text{Mint Price of gold}}{\text{Present Price}} = \frac{84\cdot998}{x}$$

This gives the value of x as 114s. 6d., which is approximately the price of fine gold in London as actually quoted on the day in question. The relationship here explained was a frequent subject of comment in the press, as the following quotations will show:

“Owing to the firmer New York exchange the price of gold was fixed 11d. lower at 114s. 2d. per oz. A small amount in the market was taken for the United States” (*Times*, August 6, 1921).

“Owing to the rise in the American exchange, the sterling parity of gold was 5d. lower at 116s. 4d. per oz. *fine*” (*Morning Post*, December 31, 1920).

Lord King's Law.—This relationship between the price of gold and the exchanges of a country with a depreciated inconvertible currency was observed many years ago and was thus expressed by what is known as Lord King's Law:—

“If a metallic and an inconvertible currency are circulating together, and the market price of bullion exceeds the Mint Price, whilst the foreign exchanges have fallen below the specie point, the paper currency is depreciated, and the difference between the market and the Mint Price of bullion is the measure of that depreciation.”

This means that if the usual specie points are inoperative, the rates of exchange between a country having a depreciated currency and a gold standard centre will turn against the former country to the extent representing the premium on gold, as measured in its inconvertible paper (see examples in Chapter XXV).

Bullion Returns and the Bullion Article.—In view of the great importance to the Money Market and to the country generally of movements in bullion, it is only to be expected that returns of such movements should be frequently published by the Bank of England for the information of all interested. Towards the close of business each day the Bank of England issues a Daily Bullion Return or Bulletin giving particulars of all arrivals or withdrawals of gold during the day, the importance of the figures to the Market being strikingly illustrated by the throng of messengers and representatives of the banks and

discount houses who await the appearance of the Return in order to convey its contents immediately to their principals.

The information given by the Bank of England respecting gold movements is of the scantiest kind, and it is not possible to determine the origin of the arrivals or the destination of the withdrawals merely by a perusal of the Daily Bulletin. As a rule, however, this information may be gleaned from the Market, or is determinable from the position of the principal exchanges.

The Daily Return issued by the Bank of England is, of course, concerned only with gold which is received by or withdrawn from the Bank. No mention is made therein of gold which is purchased or sold on the Bullion Market without the intervention of the Bank of England. Fortunately, however, the deficiency is made up by the Weekly Return of exports and imports of gold bullion issued by the Statistical Department of H M. Customs and Excise. This Return not only gives the total value of all the gold movements, but specifies also the countries from which gold is received or to which gold is exported.

Naturally, the bullion figures disclosed by the Bank of England are discussed in some detail in the Money Articles of the principal newspapers. As a rule, the City editors are able to state, from information gleaned by them from the Money Market, the destination or source of the gold movements announced by the Bank, and, as far as is possible, they explain the causes underlying those movements. The specimen of the weekly article from *The Economist* given on page 285 will well repay careful perusal.

It will be observed that the bulk of arrivals and withdrawals of gold are in the form of *bars*, but the Bank of England Return frequently records the receipt or withdrawal of *sovereigns*. It will be remembered that under the Gold Standard Act, 1925, the Bank is entitled to pay out gold for export at its option either in the form of bars or of sovereigns, and the latter are sometimes preferred by the foreign importers, particularly where the gold is to be held by a foreign central bank as part of its reserve.

So far as arrivals are concerned, sovereigns are very frequently received direct by the Bank from other countries, the reason for this being that only gold bullion in the form of bars (and not sovereigns) are dealt with in the London Bullion Market. Again, sovereigns are frequently imported into this country from the Dominions, and especially South Africa, where they are now minted in considerable quantities.

DAILY BULLION ARTICLE.

The Times, 29th FEBRUARY, 1929.

The Bank of England announced yesterday the purchase of £712,300 in BAR GOLD. Since Wednesday last there has been a net influx of £660,323 as shown below:—

ARRIVALS				WITHDRAWALS.			
			£				£
February 14	..	..	—	February 14—			
				Bars	..	..	35,906
				Sovereigns			4,000
February 15	.		—	February 15—			
				Bars	..	.	8,652
February 16		..	—	February 16	..		—
February 18	.		—	February 18—			
				Bars	..	.	3,419
February 19—				February 19	..	..	—
Bars	.	..	712,300	Influx since Wednesday last			660,323
Total	..	.	£712,300	Total	..	..	£712,300

Efflux for 1928 (according to published movements of gold), £1,321,956; efflux for 1929 to date, £1,987,197.

In the bullion market £923,000 of bar gold was available. This was disposed of at 84s. 10½d. per ounce, a decline of ¾d. The Bank of England secured about £710,000, India £80,000, the Straits Settlements £50,000, the home trade £40,000, and the Continental trade £36,000. Gold engagements for the steamer leaving Durban for India on February 25th were closed yesterday, a sum of £464,000 in bar gold having been engaged for shipment by this vessel.

Silver advanced sharply as a result of a strong Chinese demand for the metal. This was understood to be associated with the recent less favourable political reports from China. India was also a buyer at lower prices, and there were only small offerings. The cash price advanced ½d. to 25½d. per ounce, while the forward quotation at 25½d. showed a rise of 3-16d.

BULLION AND SPECIE.

Imports of gold into Great Britain and Northern Ireland, registered * from midday on February 14th to midday on February 18th, amounted to £6,166, while exports amounted to £8,269. In the same period imports of silver amounted to £4,261 and exports amounted to £70,558.

INDIAN PAPER CURRENCY RESERVE.

	February 15	February 7
	Lacs of Rupees	Lacs of Rupees
Note circulation	19,144	18,916
The reserve against it was held in the following form.—		
Silver coin and bullion in India	9,910	9,882
Gold coin and bullion in India	3,221	3,221
Securities (Government of India)	4,327	4,327
Securities (British Government)	786	786
Bills of Exchange	900	700
Total	19,144	18,916

* i.e., by H.M. Customs and Excise.

WEEKLY BULLION ARTICLE AND BULLION LETTER.

The Economist, 2nd FEBRUARY, 1929.

The following statistics of imports and exports of gold for week ended January 31, 1929, are issued by the Statistical Department of H.M. Customs and Excise:—

Imported into Great Britain and Northern Ireland.		Exported from Great Britain and Northern Ireland.	
From—	£	To—	£
Germany	2,000	Norway	137
France	21,946	Poland	3,760
U S. of America ..	2,577	Germany	25,830
British West Africa	33,111	Netherlands ..	33,100
British South Africa	822,137	France	12,731
Other countries ..	1,573	Switzerland ..	51,665
		Austria	12,300
		Egypt	13,808
		U.S. of America .	2,128,412
		Java	1,150
		Gibraltar	3,000
		Bombay, via other ports.	91,369
		Straits Settlements ..	20,355
Total declared value of imports ..	£883,344	Total declared value of exports ..	£2,397,617

GOLD MOVEMENTS

The arrivals and withdrawals of gold during the past week, as announced by the Bank of England, have been as follows:—

1929 ARRIVALS.			1929 WITHDRAWALS.		
		£			£
Jan. 25 Bars bought ..		4,805	Jan. 25		—
.. 26 Sovs. from abroad		53,000	.. 26 Bars sold ..		24,212
.. 28		—	.. 26 Sovs. export		17,000
.. 29 Bars bought		474,300	.. 28 Bars sold ..		3,451
.. 30		—	.. 29 Bars sold .		827,524
.. 31		—	.. 30 Sovs. export		3,000
			.. 31 Bars sold ..		3,385
			.. 31 Sovs.		5,000
			.. 31 Sovs. set aside		500,000
Total		£532,105	Total		£1,383,572

Net withdrawals, £851,467.

Messrs. Samuel Montagu and Co. write on January 30th as follows:—

GOLD

The Bank of England gold reserve against notes amounted to £153,103,414 on the 23rd instant (as compared with £154,171,272 on the previous Wednesday), and represents a decrease of £802,901 since April 29, 1925, when an effective gold standard was resumed. About £817,000 bar gold from South Africa was available in the open market this week. The Bank of England purchased about £475,000, as is shown below, New York £300,000, and India and the trade the balance. There was a net efflux of gold of £394,507 during the week under review.

Following are the balance of trade figures for India, in lacs of rupees, for the month of December, 1928—Imports of merchandise on private account, 1,849;

exports, including re-exports, of merchandise on private account, 2,695; net imports of gold, 273; net imports of silver, 25; net imports of currency notes, nil; total visible balance of trade, in favour of India, 552; net balance on remittance of funds, against India, 464.

SILVER

Sellers have been rather reluctant at the lower prices touched during the past week, neither China nor America being disposed to furnish supplies. Although the Indian bazaars have made some re-sales, buying orders from this quarter have predominated, and the market has assumed a steady tone, with subsequent recovery in the quotations. The rates fixed on the 24th instant—viz., 26d. for cash and 26½d. for two months' delivery—were the lowest fixed for some considerable time—for spot since October 29, 1927, and for forward since March 9, 1928. Purchases by the Indian bazaars for near shipment resulted yesterday in the price for cash silver, which had been at a discount since last November, being quoted level with forward at 26½; a premium of ½d. on silver for two months' delivery was, however, re-established to-day.

The following were the United Kingdom imports and exports of silver registered from midday on the 21st instant to midday on the 28th instant:—Imports: France, £20,791; other countries, £230; total, £21,021. Exports: Netherlands, £57,400; Irish Free State, £12,058; British India, £23,580; other countries, £4,577; total, £97,615.

INDIAN CURRENCY RETURNS (In Lacs of Rupees).

	January 7.	January 15	January 22.
Notes in circulation	18,910	18,929	18,909
Silver coin and bullion in India	10,047	9,996	9,890
Silver coin and bullion out of India	—	—	—
Gold coin and bullion in India	3,151	3,221	3,221
Gold coin and bullion out of India	—	—	—
Securities (Indian Government)	4,327	4,327	4,327
Securities (British Government)	685	685	771
Bills of exchange	700	700	700

The stock in Shanghai on the 26th instant consisted of about 66,100,000 ounces in sycee, 106,000,000 dollars and 5,160 silver bars, as compared with about 64,300,000 ounces in sycee, 105,000,000 dollars and 2,320 silver bars on the 19th instant.

GOLD AND SILVER PRICES

	Gold Per Ounce.	Silver—Per Ounce.		Date.	Silver. Cash.
		Cash.	Forward		
1929.	s. d.	d.	d.		d.
Jan. 25 . .	84 11½	26½	26⅞	Feb. 9, 1923 . .	30½
„ 26 . .	84 11½	26⅞	26⅞	„ 8, 1924 . .	33½
„ 28 . .	84 11½	26½	26⅞	„ 6, 1925 . .	32½
„ 29 . .	84 11½	26⅞	26⅞	„ 5, 1926 . .	30½
„ 30 . .	84 11½	26½	26⅞	„ 4, 1927 . .	27½
„ 31 . .	84 11½	26⅞	26½	„ 2, 1928 . .	26⅞

The inclusion in the Bullion Article of so much detail respecting the trade position and note circulation of India is, of course, striking proof of the importance of that country as a factor in the market. If India's trade position is strongly in her favour, the market can count upon heavy demands for the precious metals for export to that country, and, of course, conversely. Changes in the figures of the Indian currency note returns are important for similar reasons.

Gold "Earmarked" and "Released".—An interesting and frequent feature of the Daily Bullion Return is that certain withdrawals of sovereigns are described as "*earmarked*", whilst certain of the arrivals are referred to as "*released*". Items "*earmarked*" represent withdrawals of sovereigns which are not actually moved away from the Bank, but which are set aside on account of some foreign institution or institutions. This, as a rule, is a central bank which, instead of actually importing gold in order to maintain its reserves, arranges with the Bank of England to hold the gold on its account. If sovereigns set aside are afterwards exported, no further record appears in the Bullion Return, but usually they again return to the possession of the Bank of England and are then described as "*released*" in the Daily Bulletin.

The majority of such "earmarkings" and "releases" are on account of the South African Reserve Bank. Under its constitution, this Bank has to maintain against its note issues a minimum gold reserve of 40 %, and is entitled also to hold part of its assets in the form of foreign bills. The latter are usually English Treasury bills or first-class bills on London, and the Bank naturally aims at investing as much of its surplus funds in such bills rather than holding them unremuneratively in the form of gold. When its reserve falls below the conventional minimum on account of heavy demands for gold in South Africa, the Reserve Bank sells part of its sterling bills and arranges for the Bank of England to "*earmark*" sovereigns against the proceeds. When in due course its reserve is replenished by gold received from the South African Mint or other sources, the Reserve Bank purchases additional sterling bills and the sovereigns previously set aside at the Bank of England are released.

Withdrawals of Gold from London.—In pre-war days, practically all gold purchased in London was obtained from the Bank of England, but nowadays, as we have seen, vast quantities of gold are purchased by foreign interests direct from the Bullion Market, whither the metal is sent from abroad for disposal. Such transactions do not, of course, affect the stocks held by the Bank of England, but the position is

different when gold is obtained direct from the Bank itself. In the latter event, the method adopted is somewhat as follows:—

Bills on London are purchased abroad, and are forwarded to London for discount or sale. The proceeds are drawn from the banks in Bank of England notes, or possibly in gold. The notes or gold will eventually come from the Bank of England's Reserve in the Banking Department, and if notes are obtained, they will be immediately cashed at the Issue Department and withdrawn in bullion, or possibly in gold sovereigns. The final result is to reduce the Bank's Reserve, thereby decreasing the ratio of its liquid assets to its liabilities. If the money was obtained by one of the banks from its balance at the Bank of England, the fall in the Bank Reserve would be balanced on the liabilities side by a corresponding fall in the amount of Other Deposits, which consist principally of the balances of the other bankers. If, on the other hand, the money was obtained by discounting bills at the Bank itself, the fall in the Reserve would be followed by a rise in the Discounts and Advances subdivision of Other Securities. An example will make this clear.

If we suppose that two millions of gold were withdrawn for export, the Return quoted on page 271 would appear as follows.—

(1) *Withdrawal by a Bank from Other Deposits.*

BANKING DEPARTMENT.			
Capital . . .	£14·6 millions	Government Securities	62·6 millions
Rest .. .	3·4 „	Other Securities . .	64·7 „
Public Deposits	22·3 „	Notes	32·8 „
Other Deposits	120·0 „	Gold and Silver Coin	0·2 „
	<u>£160 3</u> „		<u>£160·3</u> „

(2) *Withdrawal by Borrowing on Bills from the Bank Itself.*

BANKING DEPARTMENT.			
Capital . . .	£14·6 millions	Government Securities	62·6 millions
Rest .. .	3·4 „	Other Securities . .	66·7 „
Public Deposits	22·3 „	Notes	32·8 „
Other Deposits	122·0 „	Gold and Silver Coin	0·2 „
	<u>£162·3</u> „		<u>£162·3</u> „

The same change, as in (2), would result if the two millions were obtained through one of the financial houses in the City, or *via* the Money Market. The Market would, in the end, have to resort to the Bank, and so cause an increase in the amount of Other Securities to correspond with the amount borrowed.

In all cases, the result on the Issue Department would be the same; notes issued and the amount of gold coin and bullion being each reduced by two millions.

The figures in the Returns show that the result of the withdrawal has been to reduce the ratio of the Bank's Reserve to its liabilities from about 24·6 % to 23 %. Every movement of this kind lessens the ability of the Bank to meet its obligations in legal tender on demand, and continued withdrawals would, in the absence of protective measures, soon place the Bank of England in a precarious position. The protective methods adopted by the Bank are discussed in the succeeding chapter.

The London Silver Market.—The price of silver bullion is fixed in very much the same way as is the price of gold. Each day a number of well-known bullion brokers meet in conference to consider the conditions of supply and demand and to fix the prices for the metal, cabling those prices as soon as they are fixed to the world's most important monetary centres.

Two prices are fixed by the market for silver bullion:—

- (a) *The "Spot" or "Ready" price*, for silver which must be delivered by the seller within one week from the date of the sale. Most of the metal is received from the foreign mining countries in weekly shipments and thus, in respect of many of the sales made before the metal has actually reached the market, the silver is sold "*to arrive*" in not less than one week.
- (b) *The "forward" price* for deliveries which must be made by the seller two months after the date of purchase.

The prices in both cases are quoted in pence per ounce of *standard** silver, ·925 fine, and *not* per ounce of *fine* metal as in the case of gold. As a rule, the metal comes on the market in the form of bars of standard fineness, weighing anything from 900 to 1,300 ounces.

The price for forward silver is ordinarily quoted at a premium or discount on the "spot" price, the margin between the two varying according to the anticipations of the market as to the likely state of demand and supply on the future date when the forward contract must be completed. Forward contracts in silver are, of course, similar to all other types of forward contract. The price is fixed at the time the contract is made, but the silver is not actually delivered and no cash passes until the agreed future date for forward delivery.

The market for silver is peculiar in several respects. In the first

* I.e., pre-1920 standard—see page 455.

place, the volume of forward business is much greater than the volume of spot business, and the forward quotation is consequently by far the more important. There are two main reasons for this. First, refiners of silver ore are eager to take advantage of the forward facilities in order to relieve themselves of any risk of loss through fluctuations in the price of the metal. Secondly, the market is very much dominated by the demand for silver from India, China and other Eastern countries, where the metal is not only used as the principal form of currency, but is also widely in demand for ornamental purposes, particularly in the Indian Bazaar trade.* This demand is concentrated mainly in the hands of the Eastern exchange banks, who are very large buyers of forward silver, more especially because, by buying forward, they ensure that they have the necessary silver available to meet Eastern silver bills at maturity.

Another feature of the London Silver Market is that a considerable proportion of the silver sold in the market is never actually received there. Much of it is sent direct from the producing country to the purchasing centre, as, for example, from the silver mines of Western U.S.A. and Canada to China and India.

Finally, it may be observed that since most of the world's new supplies of silver come from the U.S.A., a considerable proportion of the proceeds of sales on the London Bullion Market have ultimately to be paid to New York, with the result that movements in the New York-London exchange exert an important influence on the price of silver in London. If the New York exchange moves favourably to this country and dollars become cheaper in terms of pounds, purchasers of silver have to pay less pence per ounce for the supplies of the metal from U.S.A. Consequently, the price of silver on the London market tends to fall. Conversely, if the New York exchange moves unfavourably and dollars become dearer in terms of pounds, the imports of silver cost more and consequently the price of the metal rises on the London market. Thus we may say that the price of silver in London moves directly with the value of the dollar and inversely with the rate of exchange between London and New York.

The London Silver Article.—Although the Silver Market in London is necessarily overshadowed by the world-wide importance of the Gold Bullion Market, the Daily and Weekly Reports of conditions and prices in the Silver Bullion Market are of considerable interest to bankers, financiers and Eastern traders. The Bank of England itself is not

* Of the total annual production of about 250 million ounces, approximately 75 % is taken by India and China.

greatly concerned with the position or movements of silver, and no official Return is issued by that institution corresponding to the Daily Gold Bulletin.

Daily and Weekly Reports are, however, issued for the guidance of the Money Market by the old-established firms of dealers previously referred to, and a summary of the conditions on the market is given in the daily and weekly financial papers. A specimen of the Silver Article from *The Economist* appears on page 286.

It will be observed that this reviews the weekly conditions on the London Market and specifies the countries from which silver was received and the countries to which silver was exported during the week in question, the information being obtained from the Report of the Statistical Department of H.M. Customs and Excise.

CHAPTER XII

THE BANK RATE AND THE MONEY MARKET : THE CONTROL OF CREDIT AND OF THE FOREIGN EXCHANGES

THE Bank Rate is the official advertised minimum rate at which the Bank of England will discount approved (i.e., first class) bills of exchange having three months to run before maturity. For its regular customers, the Bank may discount at slightly lower rates. The Bank Rate is fixed by the Bank Court of Directors at their meeting on Thursday in each week, and its great importance lies in the fact that all other rates in the Money Market and in the country are regulated by it.

There are several rates of interest in the Money Market which, while all are more or less dependent upon each other, are all dependent on the Bank Rate.

Market Rates of Discount are the rates charged by brokers and bankers other than the Bank of England, for discounting first-class bills of exchange. Different market rates are quoted, usually increasing with the length of the period for which the bill has to run. The market rate, sometimes called the "*private*" rate, is nearly always lower than the Bank of England rate

Bankers' Deposit Rate is the rate of interest allowed by bankers on money placed with them on deposit by their customers, and is usually fixed at about 2 % below Bank Rate.

Brokers' Deposit Rate is the rate allowed by brokers and discount houses on money lodged with them repayable at call or short notice, and is usually slightly higher than Bankers' Deposit Rate.

Bankers' Call Rate or *Day to Day Rate*, and *Bankers' Short Rate* or *Seven Day Rate*, are the rates charged by bankers for lending money to bill brokers and others, repayable on demand or at short notice.

Treasury Bill Rate is the rate of discount at which Treasury bills are obtainable "on tap", or the average rate of discount at which tenders were accepted by the Treasury during the previous week.

The following table from *The Economist* indicates the method of quoting the various rates on the London Market:—

LONDON RATES.

	June 6, 1920.	June 7, 1920	June 8, 1920	June 10, 1920.	June 11, 1920	June 12, 1920	June 13, 1920.
Bank rate (changed from 4½% Feb. 7, 1920)	5½%	5½%	5½%	5½%	5½%	5½%	5½%
Market rates of discount—							
60 days' bankers' drafts.	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
3 months' do	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
4 months' do	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
6 months' do	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
Discount (Treasury Bills)—							
2 months'	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
3 months' *	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆	5½ ¹ / ₁₆
Loans—Day to day	3½	3½	3½	3½	3½	3½	3½
Short	4½	4½	4½	4½	4½	4½	4½
Deposit allowances Banks	3½	3½	3½	3½	3½	3½	3½
Discount houses at call	3½	3½	3½	3½	3½	3½	3½
At notice	3½	3½	3½	3½	3½	3½	3½

* Additional to those offered by tender in the preceding week

Most of the “*market money*”, which forms “*the short loan fund of the London Money Market*”, is derived from the funds held by bankers on behalf of customers, and consists of deposits on which low interest is paid, and of current accounts on which no interest is paid. All this money, with the exception of that reserved to meet withdrawals, must be employed remuneratively, and as it is repayable on demand at short notice, it must be invested in easily realisable securities. Part of the money is used to discount bills, part to grant loans and advances, and part is invested in Government securities. In addition, a floating balance is maintained at the Bank of England. The fluctuating surplus of the bankers' funds is lent out at low interest to bill brokers as “*Money at Call, or Short Notice*”, in the manner already described.

Now, the price at which bankers will lend “*money at call or short notice*” is naturally dependent on the price at which they are able to borrow from their customers “*on deposit*”, and as “*Deposit Rate*” is based on Bank Rate, it follows that a rise in the Bank Rate causes a rise in the Call and Seven Day Rates, at which the bankers lend to the brokers. The brokers, having to pay more for the money they borrow, must charge higher rates for discounting bills, and the result is that Market Rates also go up. The same set of forces operate in the other direction when the Bank Rate is lowered: ultimately Market Rates are brought down.

But, generally speaking, the influence of a raised Bank Rate is only effective when money conditions are fairly stringent. If there

are plentiful supplies of money on the Market, the competition of brokers and bankers keeps Market Rates down in spite of a rise in the Bank Rate, because they are anxious to secure any return rather than none at all. The Bank must then adopt other means to obtain control of the Money Market, and it does this by borrowing some of the surplus money itself, until the excess is reduced. Bill brokers are then compelled to fall back on the Bank for funds, i.e., the market is forced "into the Bank", and the Bank fixes its own price for the accommodation.

It is thus true to say that the Bank of England's official rate of discount determines the level of interest rates throughout the country, and that it also has an important influence on the level of rates in other centres, more especially Continental countries. But movements in interest rates seriously disturb commercial contracts, impart an element of uncertainty to business transactions, and, in many cases, cause hardship and loss by disturbing the relationship between debtor and creditor. For these reasons, the Bank authorities change the official rate only after most careful deliberation, and only when all other means at their disposal have failed to control the money machine.

The "Open Market Policy" in Pre-War Days.—The adoption of alternative means for controlling monetary conditions implies that the Bank is resorting to what is known as its "*open market policy*." In pre-war days, this was resorted to only in abnormal conditions and was almost solely confined to draining off surplus floating money from the Market with the object of securing the effectiveness of a rise in the Bank Rate, thereby preventing or minimising an outflow of gold, protecting the national reserve, and remedying adverse exchanges. In such circumstances, movements of gold could be regarded as automatic indicators of the Bank's policy. Heavy exports of the precious metal invariably presaged a *rise* in the Bank Rate, combined, if necessary, by resort to the open market policy, while any noteworthy additions to the Bank's stocks of gold generally betokened a *fall* in the Bank Rate, with the object of easing the credit position, and, if necessary, inducing withdrawals of gold from the Bank's reserve.

Changes Wrought by the War.—Conditions to-day are vastly different. A large proportion of the world's gold has been accumulated by the United States, gold stocks in this and other countries have been materially reduced, and there is much expert opinion in favour of the view that the annual additions to the world's gold supplies are inadequate, both to meet the additional quantity required because so many nations are now anxious to establish or re-establish the full

gold standard, and to cover the extra demand due to the normal increase in world population and trade.*

Moreover, while, on the one hand, shipments of gold are not now prompted to anything like the pre-war extent by high interest levels, gold movements in recent years have frequently partaken of the nature of special transactions having no direct relation either to the state of the exchanges or to credit policy. Thus certain British banks have on occasion imported considerable quantities of gold to increase their own cash holdings or for some other undisclosed reason. Newly established foreign central banks have shown much eagerness to replace their valuta by actual gold, imported from London and other centres, while, as is well known, the Bank of France during 1928 heavily increased her gold holdings by enormous imports of the metal in order to bring the percentage of her gold reserves above the minimum of 35 % of her demand liabilities required by the law which stabilised the franc.

Central Bank Policy.—The result of the operation of these and other factors is that the world's central banks have been compelled to find some means of regulating the internal credit machine apart from absolute dependence on gold reserves and gold movements. The American Federal Reserve Board has had to take steps to curb the credit-creating power of its vast gold imports, whereas other central banks, including the Bank of England, have been compelled to extend and develop their open market policy, and to co-operate together with the object of systematically reducing the monetary demand for gold and ensuring that the credit machine shall function, as independently of gold movements as is possible.

Thanks to their efforts, wide and unnecessary fluctuations in the credit situation have been avoided, while gold movements throughout the world have been materially lessened, with the greatest possible benefit to the nations concerned. "The so-called automatic character of the gold standard was always subject to important qualifications even in the period before the War. But since its general restoration

Amongst others, Professor Gustav Cassel, Mr. McKenna and Mr. J. M. Keynes have expressed this view. Mr. Keynes argues that whereas the annual rate of production of gold leaves an addition of 2 % of the existing stock available for monetary purposes (i.e., after allowing for industrial use and hoarding), an increase of about 3 % is required to provide for the normal expansion in the world's economic life.

The *Midland Bank Review* for January, 1929, gives Mr. Joseph Kitchen's estimate of the world's total output for 1928 as £83½ millions, and suggests that, of this total, probably £40 to £45 millions were added to the world's monetary stocks, i.e., about 2 %, as against Mr. Kitchen's estimate of a 2·7 per cent. increase in world population and trade.

after the post-war collapse of currencies the standard has definitely become a 'managed' standard in the hands of the leading Central Banks. The contribution that a sound policy on the part of Central Banks co-operating all the world over, can make towards creating and maintaining stable conditions for industry and employment is immense. This power is perhaps second only to that of government in the broadest sense, which according as it is directed, wisely or not, affects for good or ill the destiny of whole communities." *

As its name indicates, resort to the open market policy simply means that the central bank enters the open market as an active buyer or seller of short-term credit,† with the object of diminishing or increasing the supplies of such credit and thereby giving greater effectiveness to its control of monetary conditions. The central bank is able to operate in this way by virtue of its position as the central reservoir of credit, not only for the Money Market itself, but also for the country as a whole. When the central bank *sells* securities or bills, credit flows back from the Market to the central reservoir, Market supplies are decreased and Market rates tend to harden. Conversely, when the central bank *buys* securities or bills in time of monetary stringency, credit floats from the bank to the Market, whereon supplies of credit are increased and rates tend to ease

The Bank of England's Open Market Activities To-day.—Open market operations by the Bank of England at the present time usually take the form of purchases or sales of Government or other securities (e.g., Consols, War Loans, Exchequer Bonds, etc.) in return for cash, and are at once reflected in the important items of "Other Deposits" and "Government Securities" or "Other Securities" included in its weekly Return. A sale of securities or bills by the Bank to the Market is reflected in a reduction in the amount of "Government Securities" or "Other Securities" and in the total of "Bankers' Deposits," while the proportion of the Bank Reserve is increased. On the other hand, when the Bank buys securities or bills, "Government Securities" or "Other Securities" and "Bank Deposits" are increased, while the Reserve proportion falls.

On occasion, the Bank's intervention may assume a less tangible form, particularly when it desires to forestall or prevent developments

* *Central Banks*, by Kisch and Elkin.

† In Italy and certain other countries, an approximation to this open market policy consists in the variation of the rate of interest granted by the central bank on the deposits of the ordinary banks. Thus, in the autumn of 1926, the Bank of Italy, being desirous of restricting credit, offered as much as 5 per cent. for ordinary bank deposits, and thus absorbed funds which would otherwise have been used in stock exchange and other operations.

which may have undesirable consequences, either on the credit situation or on the foreign exchanges. Thus it may take steps to prevent an undue expansion of credit on the occasion of heavy Government interest payments by fortifying its portfolio of first-class bills maturing on or about the same date. The payment of such bills depletes the cash resources of the other banks which would otherwise have been increased by the dividend payments. In the same category, we may place the action of the Bank in taking the Market into its confidence and thus securing its co-operation to prevent the tendency of market rates to sag or to harden more than appears to be desirable.

Notable instances of such intervention by the Bank occurred during 1928 and 1929. In May-June, 1928, when large quantities of gold were entering the country, the Bank took active steps to prevent an expansion of credit by selling considerable amounts of securities on the London Market. Thus the Bank drained any surplus supplies of cash from the Market, prevented an increase in the cash resources of the other banks, and checked their power to increase their loans. The gold which had flowed freely into the Bank's coffers was thus denied its credit-creating power and its possible interference with the internal price level and the external exchanges. At the same time, the maintenance of market rates kept up the attractiveness of London for the investment of foreign balances, and thus the inflow of gold was larger than it might otherwise have been.

In the early months of 1929 conditions veered round the other way, market supplies of credit being much reduced by the unusually large exports of gold to the United States. In order to assist the Market, the Bank of England bought considerable quantities of securities, thus re-creating part at least of the credit which had disappeared with the exports of gold.

Principles Underlying the Bank's Policy.—The general effect of the Bank's open market operations on these, as on other similar occasions, is to minimise fluctuations and ensure much more stable credit conditions than would otherwise prevail. The Bank aims at smoothing out credit fluctuations, offsetting or minimising the effect of gold shipments, and at obviating the widespread consequences and disturbance which follow changes in its official rate of discount.

In general terms, the Bank endeavours to control the currency and credit mechanism in the interests of the nation as a whole. Its constant aim is to ensure that the country's external exchanges, and also the internal credit and monetary position, shall be as stable as possible. Stability of the foreign exchanges is, as we have seen, a

most important requirement for the even flow of international trade, while steadiness of the internal currency and of the credit mechanism is necessary to prevent the disturbance of business relationships.

Now steadiness of the internal currency and credit mechanism implies that the nation shall have sufficient circulating currency and adequate supplies of credit to satisfy its current needs. That steadiness is indicated mainly by the published index numbers of wholesale prices and can be achieved by the Bank by virtue of its possession of those essentials of *central bank equipment*,—the monopoly of the right of note issue, the custody of the nation's gold reserves, and the position of banker to the State and of all other important banks in the country. (See Note p. 311.)

The advantage of the control of the note issue and of the custody of the nation's gold reserves is rather negative than otherwise. The Bank's powers in these respects are strictly delimited by law, but, clearly, any outside control of the note issue or of the gold reserves would be incompatible with the Bank's position as arbiter of the national credit. Much greater power attaches to the position of the Bank as banker to the State and to the other banks. The former implies intimate co-operation between the Bank and the Treasury, with the object not only of regulating monetary conditions for the benefit of the nation generally, but also of regulating them with an eye to the Government's current financial requirements. Nowadays, State financial operations connected with conversion schemes, payments of dividends, tax receipts, and temporary borrowings to cover revenue deficits, are of such magnitude that considerable dislocation would ensue if this close co-operation were not maintained.

Probably the most important factor ensuring the Bank's control of credit is its position as holder of the cash reserves of all the other banks in the country, since it is by bringing about changes in the total of these reserves that the Bank is able to secure control of the floating supplies of credit on the London Money Market. In ordinary circumstances, it does this by the exercise of its open market policy. When credit shows signs of too great an expansion, the Bank attracts some of the floating supply from the Market to itself; conversely, when there are indications that credit is inadequate to the need of the moment, the Bank remedies the position by increasing the quantity available. Thus its actions result in a temporary or day to day adjustment of the credit position, being very much akin to the actions of the banks and exchange dealers in effecting a daily adjustment of the conditions of demand and supply on the Foreign Exchange Market.

The two groups are, in fact, complementary to each other, and between them ensure that stability which is essential to the maintenance of the gold standard.

The achievement of stability of the foreign exchanges is a matter of even greater complexity. Temporary equilibrium on the market is attained, as we have seen, through the actions of the banks and exchange dealers, and interference by the Bank of England is called for only when the indications are that there is a serious disparity between the country's international debits and credits. Up to a point, the Bank of England's actions in the open market will have the effect of hardening or easing market rates of interest, and will therefore encourage that adjustment which is brought about by the movement of short term funds. Up to a point, too, the Bank will permit matters to right themselves by accepting gold imports, or by releasing gold for export, or by making no attempt to secure the current supplies of gold from the London Bullion Market.

Let us assume, however, that conditions are such that important foreign exchanges remain consistently unfavourable to this country; that withdrawals of gold show no signs of falling off, and that the nation's gold reserve in the hands of the Bank is likely to be reduced below the usually accepted safety minimum. Clearly, such factors point to a consistent adverse balance on the country's international accounts, and call for something more than temporary expedients. The probability is that, in such circumstances, the Bank of England will raise its rate of discount.

The Immediate and Ultimate Objects of Raising the Bank Rate.—

In the discussion of the purchasing power parity theory of the exchanges it was explained that the rate of exchange prevailing in the Market at any particular time is determined by demand and supply, whereas in the long run, the rate is determined by the relative purchasing power of the two currencies concerned. We have seen, too, that the maintenance of the gold standard implies both temporary and consistent equilibrium between the nation's total debits and credits. Consequently, when the Bank of England decides that it is necessary to raise its rate of discount in order to prevent an outflow of gold, it has two objects in view.

Its *immediate object* is so to influence the relationship between the demand for and supply of sterling in the gold-attracting centres that a better equilibrium between debits and credits in course of settlement is at once achieved. In other words, it endeavours to influence the rates of exchange in favour of London so as to prevent an outflow of

resources, in the form of gold or of floating capital, and, if possible, to induce an immediate inflow of such resources.

This first object is achieved mainly because the higher rate of interest increases foreign short-term investments on the London Market (either by the purchase of London bills or otherwise, as explained in the last chapter), while, at the same time, it lessens the attractiveness of foreign centres for the investment of funds from this country. The investment of foreign funds in London leads to a demand for sterling exchange, while the decrease in the investment of British funds abroad results in a falling off in the London demand for foreign currencies. The market rates of exchange move in favour of London and the gold outflow is stopped or prevented. The inflow of short-term balances remedies the obvious deficit in the nation's international position, and brings about conditions of equilibrium between the total debits and credits in process of being set off.

The *ultimate object* of a rise in the Bank rate is more fundamental. The Bank aims not merely at bringing about a change in the existing conditions of demand and supply on the Foreign Exchange Market: it seeks also to bring about conditions of more permanent equilibrium by altering the *bases* of the rates of exchange, i.e., modifying the purchasing power parities between sterling and other gold standard currencies, thereby bringing about a change in the direction of trade and consequently modifying the ultimate balance of international payments.

The Bank is able to achieve these objects because the rise in the rate of interest forces up the internal purchasing power of sterling. Higher rates of interest stimulate saving and discourage borrowing; bankers' deposits increase and their loans contract; credit facilities generally are restricted, with the result that the supply of money relative to the quantity of exchangeable goods tends to be reduced. Consequently, the price level falls, i.e., the internal value of sterling rises, and its external value tends to follow suit, thus influencing the foreign exchange rates in favour of London.

Moreover, the fall in the price level has important reactions on the flow of goods. The country becomes a relatively better market in which to buy but a relatively poorer market in which to sell. Exports are therefore encouraged while imports are discouraged. The balance of trade is modified to a position of better equilibrium. The increase in exports adds to the foreign demand for sterling, whereas the fall in imports lessens the supply of sterling in other centres. Thus the rates of exchange are further influenced in favour of London, not only

temporarily, but until conditions are again changed, and new and opposing factors come into play.

The Importance of Ensuring the Effectiveness of the Bank Rate.—

The reader should now be in a position to understand why it is so important to the successful operation of the Bank of England's credit policy that movements in its rate should be followed by corresponding movements in market rates of discount and interest. The first-class London bills purchased by foreign bankers as investments for their liquid funds are discountable at *market* rates, and not at Bank rate, so that the foreign demand for such bills will not be increased unless a rise in the Bank rate is followed by a rise in the market rate. Secondly, foreign balances will not be attracted for investment in this country unless the rise in the Bank rate induces a rise in the rates of interest offered on the Market for deposits of bankers' funds. Again, general credit conditions throughout the country will not be affected unless the rates of interest charged by lenders generally follow the lead set by the Bank of England, for it is obvious that no borrowers would resort to the Bank and pay its higher rate if there were sufficient loanable funds available elsewhere at lower rates. It is for these reasons that the Bank of England, faced with the vital necessity of preventing the depletion of its Reserves, or remedying adverse exchanges, resorts to the open market in order to secure the efficacy of its rate.

There are occasions when the Bank's efforts to maintain internal price stability appear to conflict with its desire to secure stability of the exchanges. Mr. J. M. Keynes has, in fact, declared that it is impossible to achieve both objects at once. Internal price stability, he contends, can be obtained only at the expense of a fluctuating exchange, whereas a steady exchange cannot be guaranteed if the internal price level is not to be allowed to vary.

While there are good reasons for these objections, we may simply observe that the Bank, in recent years, has resorted so successfully to the open market policy that its rate of discount has remained unchanged for relatively long periods of time. This stability is in marked contrast to the frequent changes which have taken place in central bank rates in other important financial centres, and much of the credit for this is due to the fact that the Bank's efforts in the direction of stability have been greatly assisted by its essentially modern practice of taking the Money Market into its confidence, thereby obtaining the immediate co-operation of the banks and other institutions in giving effect to its credit policy.

Criticism of the Bank's Policy.—The Bank of England will not, of course, maintain a high rate of discount longer than is, in its opinion, absolutely necessary. High rates of interest, by increasing the cost of liquid capital, necessarily have a depressing and restrictive effect on industrial and commercial activity, and would seriously diminish production if continued too long.

Unfortunately, there is no absolute basis for determining when a relatively high Bank rate has outgrown its utility and has become detrimental rather than beneficial. For this reason, the Bank's action in imposing or maintaining a high rate, and in otherwise influencing credit conditions, is frequently the subject of much criticism. In particular, its credit policy immediately before our return to the gold standard of 1925 and in the years following has been widely attacked on a number of grounds. Mr. McKenna has gone so far as to attribute the industrial depression and the severe unemployment in this country from 1923 onwards to the too stringent control of credit exercised by the Bank, pointing out that trade and employment would be stimulated if greater accommodation were made available on non-inflationist lines, as has been done in the United States. Other experts have been equally critical, while most violent attacks on the Bank's policy have come from certain associations of manufacturers, who assign to that policy much of the blame for the difficulties which trade and industry in this country have had to face since the War.*

Strong doubts on our present monetary arrangements were expressed in the Memorandum addressed to the Chancellor of the Exchequer in April, 1928, by the Conference on Industrial Re-organization and Relationships, comprising representatives of Employers' Federations and the General Council of the Trades Union Congress. The signatories to this document, including some of the foremost industrialists in the country, expressed the view that the currency and banking policy pursued by the Treasury and Bank of England ought in fact to be framed in such a way that the special interests of industry are safeguarded and furthered. They expressed the conviction "that it is impossible to restore prosperity to industry and trade, or to revive or maintain stability of trading conditions, unless the elasticity of currency and credit is so arranged to meet the requirements of industry

* A particularly violent attack appeared at the end of 1928 in the *Quarterly Trade Journal* of the British Electric and Allied Manufacturers' Association, in which it was stated that the financial policy of the Bank "has been a very powerful factor interfering with the normal growth of business, and has undoubtedly contributed to the state of depression which has ruled in this country since March, 1928".

and commerce that industrial recovery will not be arrested by the lack of credit facilities, as soon as increased production becomes effective”.

Another important aspect has recently been emphasised by Professor Cassel. He points out that it is essential that the Bank of England, like any other central bank, should so regulate credit that the supply of new bank money made available to the public adequately provides for the increased demand which must inevitably result from annual economic progress. But no more than this should be made available, otherwise the equilibrium of the nation's capital market will be disturbed by the inflow of funds in excess of the real savings of the people.

Apart from such general considerations, the Bank directors have to keep before them the necessity of earning satisfactory dividends for their shareholders, and this they will be unable to do if the Bank rate is so high as to force the Bank's usual borrowing customers to go elsewhere. In such circumstances, brokers who ordinarily resort to the Bank would look to other lenders for accommodation, and the Bank would find its discount business falling off. Accordingly, in order to secure a fair share of the business of discounting, the Bank would, if possible, once again lower its rate, although it would not do so if such a step were opposed to its long accepted, self-imposed duty of conserving the national credit.

The Position of the Bill Brokers.—The method of protecting the Bank's Reserve described above makes the bill brokers' position particularly difficult. As dealers in money, lending out capital day by day for short or long periods, fluctuations in the rates at which they can borrow or lend are to them of prime importance. In normal times, when Bank rate is low, a broker may largely increase his commitments in the belief that the low rate will continue. Suddenly an advance in the rate is announced, his estimated profit disappears, and he may be confronted by a loss. But that is not all. The manœuvres of the Bank to obtain control of the Market also cause him hardship. If funds become scarce as a result of the Bank borrowings or sales of securities, the other banks on whom the broker relies for accommodation call in their loans, and compel him to obtain funds elsewhere, usually at a higher rate of interest.

If the stringency continues, the brokers are compelled in the end to resort to the Bank, which in such circumstances is always willing to lend, *but on its own terms*. This means that the Bank charges the broker $\frac{1}{2}$ % over Bank rate, and will not lend for less than a full

week. Now the broker works to a very fine margin of profit and the success of his business depends very largely—if not entirely—on his aptitude in anticipating the future course of market rates. Consequently, such changes as we have described entirely upset his calculations as well as disturb his arrangements, and at best his margin of profit, which is always a low one, is bound to disappear.

The difficulties of the broker are much more pronounced when sudden movements in the Bank rate occur as the result of a gold shipment for a specified object. Then the announcement by the Bank is the first news received by the Market of the outflow of gold, and is quickly followed by a sudden hardening of rates. The Market can prepare itself when an unfavourable turn in the exchanges develops progressively. Dealers closely scrutinise the position as exchanges gradually approach specie point, and market rates are adjusted to every movement in the quoted exchange. Conditions and consequences are capable of forecast and measurement by the skilled observer. Brokers know that a continuance of an unfavourable movement will be followed by a change in the Bank rate. They grow cautious and reduce their commitments; prefer rather to borrow than to lend; charge higher rates for discounts, and allow higher interest on deposits. They are, therefore, prepared for the next move on the part of the Bank, and are able to avoid the serious inconvenience which always attends an unexpected rise in the Official Minimum.

Effect of Post-War Restrictions on the Bank's Position.—In spite of the fact that Britain's return to gold, announced by Mr. Winston Churchill in his now historic Budget speech of March, 1925, is not yet as complete as we may hope to see it eventually, the event was nevertheless one of paramount importance, marking as it did the end of a period of financial upheaval unparalleled in our history. As Mr. McKenna stated at the time, the psychological and moral aspects of Britain's resumption of the gold standard were of almost greater significance than the purely economic and financial considerations. The gold standard implies an international measure of value ensuring an automatic adjustment of prices and of the exchanges, while it inspires that confidence in the future which is so vital to a return to more normal and more stable business conditions. Britain's prosperity and greatness are undoubtedly linked with the gold basis of exchange, internal and external, and, as has already been shown, London's prestige as an international centre is built on her world-wide reputation for immediate payment in gold upon demand. The resumption of the

gold standard meant the return to that parity between sterling and gold which existed for over one hundred years prior to the War. It meant the re-establishment of the fact that the purchasing power of sterling and the purchasing power of gold are synonymous, a fact which has endowed the British monetary unit and British instruments of credit with a world-wide prestige.

But Britain's return to gold under the uncertain conditions which then existed, and still exist, necessarily occasioned a certain amount of anxiety, and it is for this reason that such careful arrangements were made by the Gold Standard Act to ensure that the fullest possible use shall be made of the national gold reserves. While those reserves are liable to be drawn upon to satisfy foreign demands and to maintain our exchange rates with other nations, they are protected by the various restrictions from depletion by internal drains. At the present time the function of the Bank rate is not so much to check or stimulate gold movements, as to attract foreign balances for investment in this country and induce foreign bankers to purchase London bills with the object of reducing gold shipments to a minimum. Moreover, changes in the Bank rate during recent years have been dictated not so much by the necessity of safeguarding our gold reserves, as by questions of national policy, high rates being maintained in an endeavour to check internal speculation and unnecessary borrowing with their consequent ill-effects of inflation and over-trading. There is little doubt that this function of the Bank of England rate of discount will continue to be of importance until more normal conditions prevail.

Other Factors Modifying the Ascendancy of the Bank of England.—

Finally, two other important factors must be mentioned which have in recent years tended to lessen that commanding influence of the Bank of England which for so long a period has been such a marked feature of our financial system. The first of these is the great increase in the size and importance of the chief joint-stock banks in consequence of the policy of amalgamation which during recent years has characterised British banking. By the magnitude of their resources and the vast extent of their businesses some of these institutions are of almost greater importance than the Bank itself, and occasions necessarily arise when their interests tend to be opposed to those of the central institution. In such circumstances, they may not find it politic or expedient to follow the lead of the Bank in fixing rates of interest for loans and deposits, and the Bank has then to press its open market policy in order to secure the efficiency of its rate as a lever for raising interest rates in the London Market.

It is for this reason that a considerable weight of City opinion is in favour of the representation of the large joint-stock banks on the Board of the Bank of England. This, it is suggested, would ensure greater co-operation between the Market and the Bank, and make it far easier for the central institution, with the other banks in its confidence and with their information at its disposal, to exercise monetary control in the interests of the country at large.

The other factor of importance is the presence of the Government in the Market as the principal borrower of surplus funds against the issue of Treasury bills and Treasury Bonds. At times the State has absorbed the floating money on the London Market to the enormous total of over £1,000 millions, and in recent years this vast borrowing on Government account has exerted such a potent influence on market rates of interest that we may briefly review its origin and effect.

Government Borrowing on Treasury Bills.—Treasury bills were originally issued in 1877, on the suggestion of Walter Bagehot, with the object of meeting temporary excesses of Government expenditure pending the receipt of revenue from taxation and other sources. In effect, although not in form, a Treasury bill is precisely the same as a bill of exchange drawn on the Government, and is made payable, on a fixed future date, at the Bank of England out of the Consolidated Fund of the United Kingdom. Moreover, a Treasury bill is similar to its more prosaic prototype in the fact that it is issued and subsequently sold at a discount from its face value, but it is unlike many bills of exchange in the fact that it is always backed by the finest possible security—British National Credit—and is thus a short term investment of the utmost liquidity and value.

Soon after the outbreak of the Great War, it became evident that the issue of Treasury bills offered a most convenient and simple method of borrowing to meet the ever-increasing exigencies of Government finance. Powers were accordingly given to the Treasury to borrow by these means such sums as it required from time to time, and, as the War progressed, Treasury bills in vast quantity were issued to provide funds for repayment of other forms of maturing debt, and for the heavy interest payments on the War Loans and other Government securities. Between 1914 and 1921, the total amount of outstanding Treasury bills had increased tenfold from £100 to £1,000 millions, and although this amount has since been considerably reduced, the total in issue at the time of writing (June, 1929) still exceeds £700 millions. Originally used as a mere temporary expedient to cover revenue deficiencies, Treasury bills have thus become, not only an

integral and very substantial part of the British floating debt, but also a factor of the greatest importance in the nation's financial machine as centralised on the London Money Market. Moreover, "The Treasury bill, once the perquisite of financiers, had become at the time of the Armistice a widely held form of investment, the property of manufacturers, merchants, miscellaneous insurance and other companies, to an amount of the magnitude of £500 millions."*

How Treasury Bills are Issued.—The procedure adopted by the Government in issuing Treasury bills has varied from time to time, although they are invariably made available through the Bank of England, acting under mandate from the Treasury. At times, the bills have been sold by the Bank at a fixed, advertised price; at other times, they have been sold by tender, while, on other occasions (including the period from April, 1921, up to the present time), a combination of both these methods has been adopted. The system now existent is as follows:

On Thursday in each week the Bank of England announces in the *London Gazette* that it is prepared to receive tenders up to one o'clock on the following Friday for Treasury bills, in denominations of £5,000 and £10,000, up to a stated maximum amount, which in the months of January–May, 1929, for instance, varied between £35 and £45 millions. All tenders must be made through the intermediary of a bank, discount house or bill broker, and no tender for a less amount than £50,000 is accepted. Occasionally, bills for six and even twelve months have been issued, but nowadays the whole amount allotted is in bills of three months, the person tendering having the option of indicating from which day of the following week he wishes to have the bills dated, thereby fixing their date of maturity and of repayment. Separate tenders must be submitted if bills of different maturity are required, since the rate of discount may vary to the extent of a few pence according to the repayment date chosen.

In addition to the amounts allotted by tender, the Bank usually indicates its willingness at the present time to supply "Additional Treasury Bills" at a fixed rate, known in market jargon as the "*tap rate*," because the bills are regarded as being "on tap," i.e., available as and when required. Bills on tap are slightly dearer than those allotted by tender during the previous week, since the tap rate applied throughout each week is fixed slightly below the average rate at which bills were allotted in response to tenders received on the pre-

* *The Money Market Since the War*, a lecture by Mr. D. Spring Rice, quoted by the *Bankers' Magazine*, March, 1923.

ceding Friday. Additional bills also differ from those issued by tender in the fact that the person tendering is given no option respecting their date: they are invariably dated from the day after receipt of the application.

The Effect of the Issue of Treasury Bills on the London Money Market.—It is patent that the existence and availability of such a huge total of first-class short term bills must exercise a most important influence on conditions in the London Money Market, and, in particular, on the rates of interest which prevail therein. Speaking in 1929 at the Annual General Meeting of Hambros Bank, Ltd., Sir Eric Hambro quoted an American estimate* which placed the total amount of London acceptances outstanding in November, 1927, at about £300 millions, but there are indications that this amount has since been considerably increased. It is probable that at least one-half of the total first-class sterling bills outstanding at any particular time is held on the London Money Market, yet even if we put the total so held as high as £175 millions, it is nowhere near the figure of £450 millions considered to be the Market's probable holding of British Treasury bills.

The first point which strikes one on considering these figures is that the issue of Treasury bills must have made good the War-time deficiency in first-class bills, required by the Money Market—and especially the banks—for short-period investment. The second point is that the availability of such vast supplies of these bills, backed by the finest security, must necessarily influence the rates of discount at which other bills are bought and sold. Indeed, full use of this fact has been made by the Bank of England and the Treasury, working in close co-operation, in order to manipulate credit conditions on the Market.

If, for instance, the authorities desire for any reason to restrict credit and force up the rates of discount, a larger amount in Treasury bills is offered than is automatically returned to the Market from the maturing Treasury bills. Thus market funds are reduced and discount rates harden. To achieve the same object, the Government

* Given in December, 1927, by Mr. C. A. Austin, President of the American Acceptance Council. This figure may be compared with the estimate of £325 millions for August, 1914, made by the late Sir Ernest Harvey, at the instance of the Treasury, and also with the figure of £350 millions for the same date, given by Mr. D. Spring Rice (see *The Money Market Since the War*, a lecture reported by the *Bankers' Magazine*, March, 1923). In 1914, of course, prices were much lower than they were in 1927–1928, hence it would seem that the *commodity value* of London's acceptance business is still somewhat below that of pre-war days.

may offer unlimited quantities of Treasury bills at a high rate of discount (i.e., at a cheaper price), and thus compel sellers of other bills to accept an equally high rate. Naturally, if those sellers do not increase their rate, i.e., lower their prices for bills, buyers will immediately resort to the cheaper Treasury bills.

On the other hand, if the authorities wish to relieve a prevailing stringency and bring existing rates down, they offer for sale or tender a smaller amount in Treasury bills than the total sum to be received by the Market from impending maturities, with the result that market funds increase and rates tend to ease. Until conditions veer the other way, and the full quota of Treasury bills is issued, the Government finances itself, if necessary, by obtaining Ways and Means Advances from the Bank of England.

Generally speaking, the influence of the issue of Treasury bills is more pronounced when conditions in the Market are pursuing an even course, it is far less effective when monetary conditions have a marked tendency to ease or stringency, for then the Market is inclined to move independently of the Bank and Treasury. On the one hand, market supplies of money may be so plentiful and the foreign demand for bills so insistent that discount rates cannot be forced upwards to the desired extent. On the other hand, the Market may be so short of funds and the foreign demand for bills may slacken to such an extent that rates are forced upwards farther than the authorities desire. In such conditions, the Bank can obtain control of the Market only by fortifying the influence of the Treasury bill rate by resort to its open market policy.

Clearly, the issue of Treasury bills is a method of Government finance which has the combined advantages of economy, flexibility and adaptability. It enables the Government of the day to borrow precisely such sums as it requires to meet current needs on the best possible terms, since competitive bidding for such bills as are made available each week ensures that the rate of interest paid by the Government is kept to a minimum. At the same time, the control of the issue by the Bank of England in consultation with the Treasury, not only gives great flexibility to monetary conditions in the Market, but also ensures that those conditions can be modified as is considered necessary by those responsible for the nation's currency and credit machinery.

Thus we may conclude that the Bank of England, by virtue of its close co-operation with the Treasury, and the influence it is able to exert through its open market policy, is the ultimate arbiter of British

credit policy and holds the master-key to the position of our international exchanges.

Is the World Now on a Dollar Standard?—Throughout the discussion in the foregoing pages it has been emphasised that stability of the foreign exchanges and of internal prices in the world of to-day depends on the maintenance of the purchasing power of the currency at the same level as the purchasing power of gold. Now it is sometimes erroneously assumed that the purchasing power of gold never varies, whereas the fact is that, over a series of years, very considerable changes may take place in that purchasing power. Gold in 1920 would not purchase half as much as it would in 1913, and, even to-day, it is only about 70 % as valuable in terms of commodities as it was in pre-war days.

But whatever the value of gold may be at any particular time, that value tends to be the same in all countries which adhere to the gold standard provided the metal can move freely from one to the other, and provided no restrictions are imposed on its normal credit-creating power. This, as we have seen, was the position in the days before the War. Gold flowed from the country where its value was relatively low to the country where its value was relatively high, and *vice versa*. The process of adjustment was automatic, the price of gold and the prices of commodities tending to find their own level throughout the world.

Nowadays, conditions are modified because of the present one-sided distribution of the world's gold through its vast accumulation in the United States, and because the gold reserves in the latter country are denied their normal credit-creating power by the action of the Federal Reserve authorities. Gold can now enter or leave the States without any apparent effect on the means of payment or on the volume of credit in that country. In other words, the internal value of the dollar is maintained without reference to gold movements. The United States Treasury is able to buy or to sell unlimited quantities of gold at a fixed price in terms of dollars, with the result that the value of gold can nowhere move far from that fixed price. In other words, the *value of gold throughout the world is determined by the value of the dollar*, as that value is determined from time to time by the monetary policy of the United States authorities.

So runs the argument which has in recent years been advanced by eminent economists and bankers to prove that the world is not now on a gold standard, but on a dollar standard. Theoretically, it does not matter from the point of view of exchange stability which

of the two standards is in operation, so long as the value of the dollar is kept as steady in terms of commodities as the value of gold has been kept over a long series of years. Absolute stability is, of course, impossible. There is no means of determining the value of the dollar except the method of index numbers, which, at the best of times, provides an arbitrary and uncertain basis. Clearly, then, the standard selected by the Federal Reserve authorities for maintaining the value of the dollar is of the utmost importance at the present time, and makes more than ever desirable the closest possible co-operation between those authorities and the world's leading central banks.

NOTE ON THE FUNCTIONS OF A CENTRAL BANK.

The Governor of the Bank of England, in the course of his evidence before the Royal Commission on Indian Currency and Finance, gave the following reply to a question as to the duties of a Central Bank:—

“It should have the sole right of note issue; it should be the channel, and the sole channel, for the output and intake of legal tender currency. It should be the holder of all the Government balances; the holder of all the reserves of the other banks and branches of banks in the country. It should be the agent, so to speak, through which the financial operations at home and abroad of the Government would be performed. It would further be the duty of a central bank to effect, so far as it could, suitable contraction and suitable expansion, in addition to aiming generally at stability, and to maintain that stability within as well as without. When necessary it would be the ultimate source from which emergency credit might be obtained in the form of re-discounting of approved bills, or advances on approved short securities, or Government paper.”

CHAPTER XIII

THE SILVER EXCHANGES: THE GOLD EXCHANGE STANDARD: THE INDIAN EXCHANGE

THE currencies of most countries of the world are now firmly established on a gold standard, but there are still a few countries in which silver is the basis of the currency and the chief medium of exchange. Of these, the most important are China (including the Treaty Ports of Hong Kong, Shanghai and Canton), Indo-China and Persia, in all of which silver has been used as money for a long period of years, and still finds greater favour with the inhabitants for this purpose than gold or any other metal.

Now we have seen that the numerical basis, or the starting-point, of the rates of exchange between any two gold standard countries is the Mint Par of Exchange, calculated by comparing the weight of pure gold contained in the respective monetary units. Such a parity can, of course, be calculated between any two silver standard countries. We can determine the weight and fineness of the silver contained in the respective coins, and calculate a theoretical basis for the exchange of one currency for another. But any parities so determined would be of little practical importance, because only a comparatively small amount of trade and exchange takes place directly between the silver countries. Most of their international business is transacted with the gold standard countries, and the question therefore arises: What constitutes the basis of the rates of exchange between a silver standard centre, such as the busy Chinese port of Hong Kong, and a centre such as London or New York, where the standard is gold, and where all payments, internal or external, are based on payment in gold?

The London-Hong Kong Exchange as an Example.—The currency of Hong Kong, like that of China generally, has had a very chequered career, and, even to-day, it has nothing like the uniformity to be found in Western countries. Yet Hong Kong is far more fortunate in this respect than other parts of China, and, at the present time, the currency consists mainly of silver coins, chiefly Hong Kong dollars

(minted at the Royal mints in London, Bombay, and Calcutta) of 416 grains (900 fine), and notes, issued by three Eastern banks, all of which are convertible into dollars. The actual rates of exchange are quoted on the basis of payment in these notes, but for present purposes we will assume that the exchange is based on the silver dollar.

A merchant in Hong Kong who sends goods to England will expect to receive payment in silver dollars or in paper currency exchangeable into silver, whereas the English merchant will calculate what he owes on the basis of pounds sterling. We have therefore to investigate the basis upon which the rates of exchange between this country and Hong Kong are calculated; in other words, we must find an equitable method of exchanging a currency based on the gold sovereign into a currency based on the silver dollar.

It is manifestly impossible to establish a Mint Par between a gold coin and a silver coin, because we have no fixed relationship between the two metals upon which to work. For instance, if silver to-day happens to be fifteen times less valuable than gold, we cannot proceed to work out on that basis the relative values of our sovereign and the Hong Kong dollar, because to-morrow the value ratio of silver to gold may have fallen to $15\frac{1}{2}$ or 16. But, it may be asked, is not silver also a legal tender in this country, and do not twenty shillings equal one sovereign? Why not therefore establish a Mint Par between the Hong Kong dollar and our shilling, which is one-twentieth of a sovereign, and use that relation as a basis of the rates of exchange?

According to the Mint Regulations in Chapter XIX, 66 of our new silver shillings are coined from one pound troy (5,760 grains) of silver, $\frac{20}{40}$ ths fine. The Hong Kong dollar contains approximately 416 grains of silver, 900 fine, so that, according to silver content, $8\cdot58$ shillings = 1 Hong Kong dollar.

Now if this was a properly workable Mint Par between this country and Hong Kong, a Hong Kong merchant, who owed a London firm £100, would be in order in sending them $\frac{2000}{8\cdot58}$, i.e., about 233 silver dollars in settlement. We know, however, that such a settlement would not be accepted.

The utility of a Mint Par depends entirely on the fact that the metals of which the coins are composed will be freely accepted in either of the two countries concerned in settlement of debts, at the Mint Par rates. If bills of exchange on London are quite freely obtainable in Paris, the French debtor buys and remits a bill to his London creditor, but that does not by any means indicate that the London creditor would not accept gold if it were sent

to him. He would do so willingly, but he accepts the bill because he knows it *means* gold in his own country. There is, therefore, always behind the bill this knowledge that it *stands for gold*; and that the rate of exchange at which it was sold is based on the exchange of gold, a commodity which in France, or England, or elsewhere, is freely accepted up to *any amount* in discharge of obligations. Creditors in both countries freely accept gold, because, no matter how large the quantity, they can sell it to their respective Governments. In our own country the Bank of England, as agent of the Mint, is compelled to buy all gold offered to it at the rate of £3 17s. 9d. per ounce standard, a price which approximates very closely to the rate of £3 17s. 10½d. per ounce at which standard gold is coined into sovereigns. Gold can be as easily disposed of in France, and in all other gold-standard countries.

With silver, however, it is different. The coinage of silver in this country is a Government monopoly. No one may take silver bullion to the Bank and expect it to be returned to him in silver coinage. The Government purchases the silver bullion required for coinage as cheaply as it can in the open market, and makes a considerable profit on its issue. Our silver currency is coined at the rate of five shillings and one sixpence per ounce of standard silver. Normally the market value of an ounce of standard silver is much less than the Mint value of 5s. 6d. Our silver coins are *token coins*; their value as coins is greater than their value as bullion. They owe their circulation, and their value as currency, to the law of the land, by which they must be accepted in settlement of debts to the amount of *forty shillings* only. The 66 shillings used in the calculation of the Mint Par with Hong Kong do not contain £3 6s. worth of silver bullion, nor do the 8·58 shillings obtained in the result contain that worth of metal. The Hong Kong dollar could not be exchanged at the Mint for 8s. 7d., nor could it be sold in the market at any higher price than the actual market value of its silver content on the day it was offered for sale.

It is now clear why the English merchant would not accept the settlement worked out above. He could not take his 233 dollars to the Mint and have them coined into shillings. All he could do would be to sell them for what they will fetch on the London silver market, in the same way as one sells any other article of merchandise. Silver in this country, whether in the form of bullion, or coins of other nations, is a commodity pure and simple, to be sold for whatever price can be obtained for it. A large supply

of silver on the market, coincident with a weak demand for it, will cause the price to fall; a strong demand coupled with a short supply will cause the price to rise. The actual market value of the Hong Kong dollar is about 2s.

The Standpoint of the Exporter in Silver Countries.—Let us now look at the matter from the point of view of a merchant in Hong Kong who exports goods to Britain, or to some other gold standard country. Will he expect to receive payment in gold, or by means of a credit instrument which represents the right to a given amount of gold? Manifestly not. He expects to be paid in his own silver currency, the only form of money which is of use to him. Gold to the Hong Kong merchant is merely a commodity—an easily realisable one, it is true, but nevertheless one which must be converted into silver before it can be of daily use as money in Hong Kong. Hence, any trader in Britain or any other gold standard country who wishes to buy goods in Hong Kong, China, or Persia, must obtain command over the requisite amount of purchasing power in the country concerned, and that purchasing power consists of silver or the right to possess silver.

The Purchasing Power Parity between a Silver and a Gold Currency.—Clearly, therefore, the exchange of the currency of a silver standard country for that of a gold standard centre involves the exchange of silver purchasing power for gold purchasing power, and the basis on which that exchange can be effected at any time is *the purchasing power parity between gold and silver as expressed by the market value of one in terms of the other*. 1,000 ounces of silver in the form of Hong Kong dollars will purchase a certain group of commodities in China. I can buy those dollars as so much silver bullion on the London market, or I can buy an equivalent amount of silver bullion and have it exchanged for the dollars by one of the exchange banks or bullion dealers. But, theoretically, I will not pay more of my gold currency for those 1,000 ounces of silver than I should have to pay for a similar group of commodities in this country or in another gold standard country. If I can buy that group of commodities for £100 in gold, then that is the most I will pay for the 1,000 ounces of silver, i.e., 2s. an ounce.

Putting the matter generally, therefore, we may say that the world price of silver in terms of gold tends to measure the purchasing power parity between the two metals, and the rate of exchange between a gold standard country and a silver standard country maintaining free mintage of silver will tend to be determined by that purchasing power parity.

Hence, if I have bought goods from Hong Kong valued at \$10,000, I will not pay more for a bank draft entitling my creditor to that amount than it would cost me to obtain the equivalent quantity of silver bullion from the London market at the prevailing market price, have it converted into dollars, and forwarded to my creditors in the East. Thus the basis on which pounds will exchange for silver dollars is the London market price of the latter considered as so much silver bullion, subject to an allowance for the cost of converting the bullion into coins and for transferring those coins to the place where payment must be made.

On the other hand, an Eastern exporter who is entitled to so much gold in this or in any other gold standard country, will not accept less dollars in settlement of his debt than he could obtain by buying silver dollars on the London market with the gold currency at his disposal.

Now, while the price of silver may fluctuate without limit, the price of gold in most countries is confined within certain narrow limits of the mint price. Hence, the exchange between a gold standard country and a silver country is always tending to what is called the *silver parity* (or “*relative par*”), i.e., the equation between gold at its mint or fixed price, and silver at its market price as quoted in the London Bullion Market, due allowance being made for the cost of laying down the metal in the creditor country. If, for any reason, the metal cannot be moved to a creditor centre, then the exchange on that centre is likely to move in its favour above the silver parity. In like manner, the exchange is likely to move favourably to such a centre and away from the silver parity if the metal cannot be transferred thereto in sufficient quantity to satisfy its demand for payment.

To summarise, therefore, it is not possible to establish a Mint Par between two countries having different standards of value, because in one the standard metal of the other simply sells for what it will fetch, and, in practice, the only rate of exchange which can exist is that which measures in one currency the actual market price of the metal contained in the unit of the other currency, due allowance having, of course, to be made for the possibility or otherwise of moving the metals, and also for the expenses and loss of interest involved in transmission. The rate of exchange between Hong Kong and London depends therefore on the price in shillings and pence of the silver contained in the Hong Kong dollar. On the other hand, the value of the sovereign in Hong Kong is simply the price of the gold in the sovereign measured in the silver currency of Hong Kong.

Silver Exchange Constants.—Although there is no *fixed* basis such as a mint parity for expressing the value of a silver currency in terms of a gold currency, there is such a direct relationship between the market price of silver in London and the rates of exchange on Eastern countries, that it is possible, at any time, to determine what a particular rate of exchange should be by taking the market price and making certain established allowances for the cost of moving silver and for converting it into coin. In practice, this is effected quickly by the use of what is known as a *constant*, i.e., an arithmetical expression which gives the constant or permanent relationship between the price of British standard silver and the price of silver in the form of the currency of the centre whereon the exchange is to be calculated. An example will make this clearer.

The Hong Kong dollar contains actually 415·985 grains of silver, 900 fine. British standard silver is now 500 fine, but the London Market still quotes its silver prices per ounce of 480 grains of the *old* (pre-1920) standard fineness of 925. (See pages 289 and 455.) From these details we can obtain a *constant* which enables us easily to convert the London price of silver into the London price of Hong Kong dollars. We do this by the Chain Rule, as follows:—

Let the London price of silver be x pence per standard ounce; then:

$$\begin{aligned}
 &? \text{ How many pence} = 1 \text{ Hong Kong dollar;} \\
 &\quad \text{If 1 H.K. dollar} = 415\cdot985 \text{ grains H.K. standard silver;} \\
 &\text{Grains 1,000 H.K. silver} = 900 \text{ grains fine silver;} \\
 &\quad \text{Grains fine 925} = 1,000 \text{ grains standard;} \\
 &\text{Grains standard 480} = x \text{ pence.} \\
 &= \frac{415\cdot985 \times 900 \times 1,000}{1,000 \times 925 \times 480} \times x \\
 &= \cdot843213 x
 \end{aligned}$$

This means that if we know x , the London price of silver per standard ounce, we can multiply it by the *constant*, $\cdot843213$, and obtain the value in pence of the silver in the Hong Kong dollar. If that silver is to be used for making payment in Hong Kong, we must allow for the cost of converting it into coin, and also for the expense of transport, including interest, thus:—

Constant	..	..	..	..	..	..	·843213
Add for							
Seigniorage charge for minting, say 2 ‰	..	..	..	..	..	..	·001686
Freight, etc., say 1 %	..	..	..	..	..	..	·008432
Interest lost during transit, say 36 days at 4 %	..	..	..	..	..	..	·003373
							<hr/> ·856704 <hr/>

By multiplying the London price per ounce for standard silver by this figure it should be possible to obtain the rate of exchange

for T.T.s between London and Hong Kong, and, so long as the various allowances for seigniorage, freight and interest remain unchanged, a figure such as this may be applied for the immediate calculation of the exchange rate according to fluctuations in the price of bar silver. Thus, if the London price is 24d. per ounce, then the rate of exchange for T.T., Hong Kong on London, should be:—

$$24 \times \cdot 856704 = 20\cdot 561, \text{ say } 1/8\frac{9}{16}\text{d.}$$

Similar constants are applied in the case of other silver exchanges, as, for example, to determine the T.T. rate per Shanghai tael between Shanghai and London, and the rate of exchange between Hong Kong and London when the dollars are obtained and moved from Bombay or Calcutta.

Every day the price of silver on the London market is cabled out to the banks in the Eastern ports, and the constants current at the time are at once applied to determine the rates of exchange on London, subject, of course, to any adjustment of the constant necessitated by a change in any of its factors. The rates thus determined are then telegraphed to the various branch banks in the interior and at other ports, so that they, in turn, can fix the rates at which they can profitably buy and sell gold exchange.

The Silver “Specie Points.”—As with gold-standard countries, the prices of remittances to and from silver countries are much influenced by conditions of demand and supply, which, in turn, are influenced by the usual causes of fluctuations already noted, the chief being the state of trade between any two nations concerned. But just as the gold points between gold standard countries act as limits to the rates of exchange between them, so also the cost of buying silver and moving it to or from a silver standard country imposes fluctuating limits to the prices of remittances which we may describe as “silver specie points.” If, for example, 100 silver dollars are sent from Hong Kong to London, they will always realise in London the market price for silver *less* the expenses of transmission from Hong Kong. It therefore follows that a merchant in Hong Kong will not pay more for a remittance to London than the cost of buying and sending silver dollars. On the other hand, he would not accept less from a London debtor in the form of a draft or bill than he would obtain if silver was sent to him, and a London debtor would not pay more for a remittance to Hong Kong than it would cost him to send silver. There are, therefore, limits on both sides

to the price of remittances, which, though fluctuating according to the changes in the value of silver, can neither rise higher nor fall lower than the market price of silver *plus* or *minus* the expenses of transmission to the country concerned.

Another price element should be noted. As in all other countries, bankers and bullion dealers handle most of the exchange business with silver countries, and the prices charged by the banks for remittances depend on the rate at which they can cover their commitments, which turns chiefly on the cost of moving silver. The London banker who is remitting funds to Hong Kong cares nothing where the silver comes from, so long as he can keep down his costs. He may ship it from London, but more probably he will arrange to move it from India, or China, or Japan, whichever comes cheapest. This, therefore, is another factor which determines the fluctuations of the silver exchanges, since the nearer the source of supply of silver to the place where it is wanted, the cheaper the remittance rates to that place.

The silver exchanges with London therefore fluctuate much more frequently and seriously than the gold exchanges, and exchange operations with silver-standard countries are distinctly hazardous. For this reason, most exchange transactions with these countries are effected by cable or telegraphic transfer, which, being quickly acted upon, obviate the risks attendant upon transactions in bills payable days or months after date or sight. Prices of goods sold to silver-using countries by gold-standard countries are generally quoted in the currency of the latter, and payments must then be made according to the gold price of silver bullion.

Fluctuations in the Price of Silver.—It necessarily follows from what has been said that every change in the price of silver in London must affect the current rates of exchange with China, Persia, and the other silver-using countries. In the case of gold, there is always a strong demand for the metal, because so many countries use it as a standard, and its value is fairly constant all the world over, since definite relationships exist between the various gold currencies. But the silver (and bronze or nickel) token currency of a gold-standard country must be restricted. The Government sees to it that enough is issued for trade requirements, and no more. In Great Britain, the token coinage is also restricted in respect of the amount which can be offered as legal tender—silver to 40s. and bronze to 1s. Similar limitations exist in other gold-standard countries. Hence, there is no unrestricted demand for silver

as there is almost everywhere for gold; only silver-standard countries demand silver in large amounts, and therefore when a great mine is opened up, or some great hoard of silver is suddenly thrown on the market, the price drops immediately. Supply beats demand, until the surplus is used up in the arts or is absorbed by the silver countries.

In recent years, the value of silver as indicated by its price in London has fluctuated violently. At the outbreak of War in 1914, the price of silver stood at about 2s. 2d. per ounce standard, and it gradually rose until, in February, 1920, it reached the record level of about 89d. per ounce. During the early stages of the War, a great demand for silver sprang up in Europe, where it was required in huge amounts to fill the gaps in the currencies caused by the withdrawal of gold, and to meet the increased demand for small currency. The necessity for supplying silver coins to the troops in Egypt, India and Mesopotamia, and the issue of enormous quantities of silver war medals and discharge badges, also added greatly to the demands for the metal by the Allied nations. In Britain alone, about nine millions of silver were coined in 1916, as compared with a former yearly average of about one million. This great demand came at a time when supplies had fallen off, particularly from Mexico, where internal disorder had practically stopped production. Speculators seized their opportunity, and held off supplies, forcing the Allied Governments to take concerted action, and by pooling their purchases, to eliminate competition for the metal.

In 1917-1918, momentous changes occurred in the prices of silver; the silver exchanges fluctuated in a remarkable manner, and on several occasions Government intervention was made necessary. In India, the value of the rupee was raised to 1s. 5d., and the importation of silver coin and bullion was prohibited. The British and United States Governments took joint steps to control the silver markets, and in this country the maximum price for silver was fixed by Order in Council.

On the 23rd April, 1918, the *Pittman Act* was passed by the United States Senate, empowering the U.S. Government to obtain possession of 350,000,000 silver dollars held by the Treasury, and to melt and export the bullion at a price not less than \$1 per ounce, 1,000 fine. This measure relieved the pressure in the silver market, but the enormous demand kept prices at a high level. During 1918, the British Mints coined a further nine millions of silver and, in the following year, after considerable fluctuations, the price

of silver reached 79½d. per ounce. The rise was attributable to two causes :—

- (1) The artificial support of the American Exchange by the British Government was withdrawn on the 25th March, 1919. The dollar rate immediately dropped, and the fall in the value of sterling sent up the price of silver, which was being imported chiefly from the States.
- (2) The British and American Governments withdrew their control of the silver market in May, 1919, and a consistent demand from China and Europe caused prices to rise constantly until the record level of 89½d. per ounce was attained in February, 1920.

In 1921 the price of silver collapsed with remarkable suddenness in consequence of greatly increased production from the mines and the release of large quantities of the metal by the U S A and other countries. By March, 1921, the price had reached 30d. per ounce, from which price it has since fallen gradually to the pre-war level.

Effects of Fluctuations in the Value of Silver.—It need hardly be stated that the violent fluctuations in the value of silver caused violent movements in the rates of exchange between the gold-standard and the silver-using countries. The general effect of the rise in the price of silver was greatly to increase the value of the currencies of the silver-standard nations, and to lower the relative value of the gold currencies. The sovereign, or pound sterling, depreciated in countries such as India and China, and those exchanges moved increasingly against this country. Such erratic movements of the silver exchanges are naturally disastrous to trade relations. Incalculable elements of risk and speculation are introduced into all business transactions; producers and exporters are uncertain of their return, while importers and consumers are unable to estimate the prices they will have to pay for goods. The result is that business operations degenerate into mere gambling transactions, while legitimate trade languishes and eventually becomes practically impossible.

Although the violent fluctuations in the rates of exchange are disastrous to trade, changes in the relative values of gold and silver may be attended by certain beneficial consequences. If the price of silver rises in London, the purchasing power of a silver currency is increased and our exchanges with silver-standard countries will become *unfavourable* to us. Exports from this country are therefore stimulated, but imports into this country from the silver-standard

nation are discouraged, because the goods cost us more. This is a favourable movement as far as we are concerned, but unfavourable for the silver country; but at best the movement can only be temporary, for the direction of trade tends to turn again when the exchange moves in our favour. In the absence of such an adjustment, trade would fall off, as goods must eventually pay for goods.

Sufficient has been said to indicate that the price of silver is highly important to merchants who specialise in trade with silver-using countries, and that they are, in consequence, far more intimately concerned with the course of the exchanges than are merchants who deal primarily with gold-standard countries. They have to contend not only with fluctuations in the price charged by the banks for remittances, but also with the possibility of marked changes in the amounts which they have to pay or to receive being brought about by violent movements in the world price of silver in terms of gold. An exporter to such countries who sells goods on the basis of payment in silver currency, and does not safeguard his position by a forward exchange contract, can never be certain of the ultimate gold return for his goods. He may contract to supply \$10,000 worth of goods to Hong Kong at a time when the dollar is worth, say, 2s, and agree to take payment in the silver currency. Yet when the time comes for settlement, the dollar may have fallen in value to 1s. 6d., in which case the exporter will receive one-quarter less than he should do, i.e., £750 instead of £1,000. In like manner, the importer from a silver country who buys on the understanding that he will pay in silver currency may find himself compelled to pay such a gold price as will deprive him of any prospect of profit.

Similar difficulties are, of course, experienced by merchants in the silver countries who trade with countries on the gold standard. The speculative uncertainty of the exchange position is superimposed on the usual and unavoidable business risks which any trader stands prepared to accept, and, while the chances of extra profit are probably as great as the prospects of loss, the speculative element is usually far too great to be accepted by the ordinary trader in gold-standard countries accustomed to more stable conditions.

For these reasons, the prices of goods sold to silver countries by gold countries are generally fixed in the currency of the latter, and wherever possible, exporters to silver countries stipulate for payment in a leading gold currency, thus placing the onus of the exchange operation on the Eastern importer.

Exchange Clauses on Eastern Bills.—As a rule, the exporter in

this country does this by stipulating for payment by sterling T.T. on London, or by arranging to draw on the Eastern importer in a sterling bill enfaced with one of the exchange clauses described in Chapter V. For example, the bill may be claused "Exchange as per endorsement," in which case the rate of exchange will be endorsed on the draft by the negotiating banker in London, and the drawee will pay at that rate. Alternatively, the bill may be claused "Payable at the *collecting* bank's selling (or drawing) rate for sight drafts on London on date of payment," in which case the foreign drawee will have to hand the collecting banker sufficient of his own silver currency to cover the cost of a sight draft on London for the sterling face value of the bill.

Another frequent usage of traders in this country is to draw bills on India and the Far East with the addition of an interest clause, thus: "Payable at the collecting bank's drawing rate for demand bills on London with interest at 6 per cent. per annum from the date hereof to the approximate due date of the arrival of the proceeds in London." By such a clause the exporter not only ensures payment of the full amount of his invoice, but also ensures that the Eastern importer pays interest on the amount of the bill from the date of drawing (usually also the date of shipping the goods) until the date when payment is received in this country.

Whatever the clause actually used, the effect is that the exporter can negotiate the bills with his bank, or obtain advances thereon, subject, of course, to the usual precautions as to security, etc., taken by the banks in connection with the purchase of bills drawn on all foreign countries. If the bill bears an interest clause, the exporter will be able to turn it into cash for its face value in sterling, since the bank will collect interest on that face value from the drawee at the rate stipulated in the clause.

If, on the other hand, the exporter arranges to have a claused bill collected, he will in due course receive payment in full in his own currency, less the bank's usual collection charges.

Investment in Silver Countries.—The Eastern silver-using countries are among those which have benefited greatly from the investment of funds by the great lending nations, notably Britain and the United States. But the investor in a gold country is in precisely the same position as the merchant so far as the hazards of silver fluctuations are concerned. He may invest his savings at an apparently profitable rate when the silver currency is relatively dear in terms of gold, and subsequently find that a fall in the gold value of that currency has

reduced his dividend payments very considerably, and wiped out a large proportion of his capital.

Suppose an investor desires to take advantage of a rate of 7 per cent. being offered on a Chinese Loan, and decides to invest £1,000 in the purchase of the equivalent amount of the loan in local currency at a time when the price of silver is, say, 27d. per ounce standard. Suppose, too, that within a short time, owing to unforeseen circumstances, he wants his money back again in London. If, in the meantime, the price of silver has fallen to, say, 24d. per ounce standard, he will get back his £1,000 with a loss of 3d. per ounce ($\frac{1}{9}$ th of 27d.): i.e., on his £1,000 he will lose £111. On the other hand, it must be borne in mind that, had the price of silver risen, say, to 30d. per ounce, the investor would have received approximately £1,111 in return for his £1,000; but the possibility of such a profit will not safeguard him against the equal likelihood of a serious loss.

For these reasons, those responsible for the loaning of money by gold-standard countries to silver countries take every possible precaution to protect the investor against exchange loss. They stipulate that dividends and coupons shall be paid, and loans repaid, in terms of a gold currency (frequently sterling), so that the onus of arranging the necessary exchange transactions is placed on the foreign government or corporation benefiting from the loan or investment.

The Chinese Exchange.—It is not within the scope of this book to enter very deeply into the complications of the Chinese Exchange, although it should not, for that reason, be thought that China is an unimportant country. Far from being unimportant, it is probable that China, with her enormous population, extensive productive areas, huge untapped mineral resources and cheap labour, will one day become a great trading nation. But it is unlikely that this will come about until a national or standard unit of currency is instituted in place of the almost unintelligible monetary confusion which at present exists.

While, in theory, China is supposed to have a dollar currency, the bulk of business transactions are conducted in terms of the *tael*, which is a weight of silver and not a coin, its actual value differing in various centres. Of the eighty known varieties, the chief are the taels of Shanghai, Canton, Haikwan and K'uping, all differing in weight, fineness and exchange value. The exchange rates between China and London are quoted in terms of the Shanghai and Canton taels, while the K'uping tael is used for all official Government purposes except for the payment of customs dues, which must be paid in terms of the

Haikwan tael. The various taels pass from hand to hand in the form of ignots or "shoes" of silver, varying considerably in weight, but being usually in the neighbourhood of 50 taels. These shoes (so called from their shape) are known as *sycee*, from the European pronunciation of the Chinese words *sai ssu*, meaning "fine silver." The average fineness (or "touch") of *sycee* silver is in the neighbourhood of 985, but some idea of the uncertainty which attaches to its valuation may be gauged from the fact that *sycee* silver exchanges for Shanghai currency on the basis of a fineness of 913.

The several varieties of silver dollar circulate mainly in the country districts. For upwards of fifty years prior to the revolution of 1911 the most widely used was the *Mexican silver dollar*, which superseded its predecessor, the Carolus (or Spanish) dollar, also minted in Mexico during the time when that country was a Spanish colony. The actual coins in circulation were considerably debased, and, apart from this, they circulated side by side with imitations, manufactured by Chinese silversmiths. Thus, although the legal weight of the Mexican dollar is 417·8 grains, $\cdot 902\frac{65}{72}$ fine, the majority of the coins in actual circulation differed from this standard both in weight and fineness, the average weight being in the neighbourhood of 416·5 grains and the average fineness about ·898. In consequence of this debasement and issue of imitations, the exchange houses resorted to the practice of marking (or "*chopping*") the genuine Mexican dollars so that they could at once be recognised, and coins not bearing the *chop* were accepted by weight and not by count.

From time to time successive Chinese Governments have attempted to reorganise the currency by minting silver dollars to replace the foreign issues. In 1890 the Imperial Government authorised coins which subsequently became known as "*Dragon*" dollars. Each province issued its quota of the coins, but they were so debased both in weight and fineness that their circulation between the various provinces was hindered, while merchants would accept them only by weight. In 1910 an attempt was made to unify the currency by the introduction of a standard silver dollar for the whole country, but it was not until 1914 that anything was done. In that year the *Yuan Shih Kai dollar* was issued, its official weight being 7 mace 2 candareens of a K'uping tael, and its original fineness 900, although this was subsequently reduced to 890.

At the present time the dollars in circulation in the inland districts of China are the Yuan dollar, the several varieties of the dragon dollar, and American dollars. Hong Kong uses chiefly the Hong Kong

dollar, a coin exactly the same as the Mexican or Maria Theresa dollar, which in other districts has practically disappeared from circulation after over fifty years of supremacy.

The Chinese "Cash."—To make confusion worse confounded, there is the fact that, whereas business transactions, particularly in the wholesale trade, are conducted in terms of taels or dollars, yet probably 390,000,000 of the 400,000,000 or so Chinese use nothing but the "vulgar" copper *cash* or *li*, the native tokens of uncertain value kept for safety on a piece of string. The vagaries of this currency have been most amusingly described by Mr. Edwin J. Dingle in the *Financial Times*. "Nobody," he says, "knows the value of cash. In some parts of China, it is reckoned to be one-thousandth part of a tael, but in other parts the copper cent (nominally one-hundredth of a dollar—the dollar being from 70 to 75 hundredths of a tael) bears the superscription "representing ten cash." Generally speaking, however, a cash is nominally one-tenth part of a cent, and exchange varies all the way from, say, 1,050 to 1,850 to the dollar.

"More often than not, a hundred cash is not a hundred, and a thousand cash is not a thousand, but some other and totally uncertain number, to be ascertained only by experience. In wide regions in China one cash often counts as two—that is, it does so in numbers above 20—so that when one hears that he is to be paid 500 cash he understands that he will receive 250 pieces, less any local abatement, which perpetually shifts in different places.

"Then there is a constant mixture of small and spurious cash, leading to inevitable dispute between dealers in any commodity. At irregular intervals local magistrates become impressed with the evil of this abasement of the currency and issue stern proclamations against it. This gives the swarm of underlings in the magistrate's jurisdiction a chance to levy "squeezes" on all cash shops in the district; then the rain comes down and washes the ink from the public proclamation, and all is serene again.

"In China money is truly filthy lucre, but all the same, for centuries that dirty little coin with a hole in the middle has been the only money that the proletariat has known, and, in the opinion of the writer, a settled currency on either a gold or silver basis will not be workable in the far interior for a long time to come."

Naturally, the existence of such a variety of coins, and the fact that they are almost always debased, causes great complications and inconvenience. The position is by no means improved by the circulation in certain parts of China of notes of various denomination

issued by more or less constituted authority. Some of these are accepted only at a big discount, and their values vary considerably as between one district and another.

It is generally recognised by progressive Chinese that a uniform currency is badly needed, and when the new Central Bank of China was established in November, 1928, the Governor announced the intention of the authorities to standardise the currency on the basis of the silver dollar current in Hong Kong. Since then a Commission has been set up under the Chairmanship of Dr. Edwin Kemmerer, charged with formulating some plan for the establishment of a uniform Chinese currency on a gold basis.

London Exchange Rates on China.—In view of the confused state of the currency and of the uncertainty attaching to the value of silver in terms of gold, it is only to be expected that the problem of the Chinese exchange is one of the greatest complexity. Fortunately, however, the position is to some extent ameliorated by the fact that the bulk of China's business with the rest of the world is conducted through the great treaty ports of Hong Kong, Shanghai and Canton, which have made rapid progress under Western influence, and which, through their world-renowned banks, conduct the greater part of China's foreign exchange operations on a basis intelligible to Western peoples. For these reasons, the principal rates quoted between China and other countries are those on Shanghai and Hong Kong, which are expressed in terms of shillings and pence per Shanghai tael and Hong Kong dollar respectively.

Thus the basic London exchange rate on the former centre is that for Telegraphic Transfers, by which gold, or its sterling equivalent, is paid in London for each silver tael laid down in Shanghai. The Eastern banks quote cheaper rates for first-class bank bills at four and six months' sight, whereby they arrange future sterling payments in London against silver deposited at once in Shanghai.

The rates of exchange charged by bankers for remittances are based in the usual way on the cost to them of covering their sales, by placing their agents in funds or by remitting silver from the most profitable centre. Rates are therefore dependent not only on the usual factors influencing the exchanges, but also on the market price of silver and the cost of "laying down" silver in the gold centres.

The rates with London are chiefly fixed in the Chinese centres, since the majority of debts between the two countries are settled by bills drawn on London. Chinese imports from Britain are paid for by bills on London, and Chinese exporters obtain payment by drawing

and selling sterling bills. China's trade with other nations is also largely settled by London bills, under arrangements with London financial houses. In fact, China is an excellent example of a country which utilises London bills to their full extent, in the manner described in Chapter IV, thus exemplifying the truth of the statement that "London draws few bills but accepts many."

The Gold Exchange Standard.—The system of exchange and currency known as the "Gold Exchange Standard" may well be described as a kind of "half-way house" between the silver standard referred to in the foregoing paragraphs and a full gold standard. This system has proved specially suitable to those countries which desire to regulate their *external* exchanges as far as is possible on a gold basis, but which are unable to adopt a full gold standard for *internal* use, either because of the comparative poverty of their inhabitants, or because of their early stage of development, or because their resources have been impoverished by war or other destructive agency.

The gold exchange standard has been in operation in more countries than is generally known. In 1893, the system was adopted in India, where it functioned with a fair degree of success until it was disorganised by the Great War. Japan, Holland, Austria-Hungary and the Philippines are among the other countries in which the system operated successfully until the war period, while most of the countries whose currencies have had to be reorganised in consequence of the War—notably Austria, Hungary, Belgium and Germany—have applied the principles of the gold exchange standard in order to stabilise and maintain their rates of exchange with the gold-standard countries.

The essential of the system is the provision of a cheap internal currency of silver or paper, and the maintenance of the value of that currency as near as practicable to a fixed par with gold (or with the gold currency unit of another country) by Government control of the exchanges, and strict regulation of the internal currency. This necessitates the possession by the State (or by a central bank acting for the State) either of adequate reserves of gold or of its equivalent in the form of gold exchange, i.e., saleable exchange on one or some of the chief gold-standard countries. If gold reserves are maintained, they are kept generally in the foreign centre whose currency unit is taken as a basis; thus, India's gold reserves are kept in London, those of Japan chiefly in London and Paris, those of the Philippines in New York, and those of Java in Amsterdam.

Operation of the Gold Exchange Standard.—The establishment and maintenance of the reserves, and the conduct of the operations

necessary to the successful working of the standard, implies close collaboration between the Government or Central Bank of the gold exchange country and the Central Bank of the country with which it is linked. The reserves may be established in the first instance by the deposit of gold, or the floating of a loan, or the establishment of a credit in the gold centre. But, thereafter, they will be maintained through the action of the Central Bank in the gold exchange country holding itself open to purchase good class commercial bills, or any other form of debt payable in the gold centre, at or near the fixed rate of exchange between the two currencies. As a result, the bank will ordinarily hold among its assets considerable quantities of maturing bills (or "gold exchange"), the proceeds of which are constantly becoming available for the replenishment of its balances.

Against these reserves of gold or gold exchange, foreign exchange may be sold when the demand for remittances to other countries tends to force the exchange rate away from the fixed parity. The remittances are paid for either in notes or in silver, according to the currency of the country concerned; contraction of the circulation enhances the value of the unit and tends to restore the exchange, whilst the payment of the remittances lowers the reserve of gold in the foreign centre or lessens the amount of gold exchange held by the Government or central bank. Conversely, when the exchange tends to rise above the fixed parity, and there is a strong demand abroad for remittances to the gold exchange standard country, or, in that country, an excess supply of gold standard exchange, the Government or the central bank again steps in to prevent any great divergence from the parity. It does this either by holding itself open to buy gold standard exchange in unlimited quantity, or by selling for gold currency in foreign centres homeward remittances drawn on itself and payable in silver or paper. In both cases, the effect is that the circulating currency of the gold exchange country is increased, the value of its unit falls, the exchange rate becomes more normal, and the gold currency received in the foreign centre adds to the reserve. The result is the same as if gold had been exported or imported, and the Government or the central bank intervenes whenever the exchange has sufficiently diverged from the parity to make the movement of gold profitable.

Thus, the adoption of the gold exchange standard means that the value of the paper or silver monetary unit is fixed within close limits of a certain defined ratio in terms of gold, or in terms of a gold standard currency, such limits corresponding to the incoming and outgoing

specie points of a country on the full gold standard or on the gold bullion standard.

In the case of a country whose internal currency is based on silver, the success of the system presupposes the fixing of the parity value of the silver unit higher than its intrinsic value, otherwise it would be possible to *expand* the circulation when necessary, but not to *contract* it. Similarly, the success of the gold exchange standard, in a country maintaining an inconvertible paper currency, depends on the strict regulation of the volume of that currency according to the current needs of trade at the prevailing level of prices. If exchange conditions demand, the notes or silver coins paid for remittances to the gold centre must be kept out of circulation until the internal value of the monetary unit is forced up to the required level, and, if necessary, this appreciation must be stimulated by a suitable restriction of credit, brought about by the maintenance of a high rate of interest or otherwise.

Advantages and Disadvantages of the Gold Exchange Standard.—

Whether the currency consists of silver or of paper, the result of the adoption of the gold exchange standard is that the country concerned obtains a cheap, easily managed currency for internal use, and yet at the same time maintains a steady exchange operating on much the same basis as if it were on a full gold standard. The system is specially suited to a country which is anxious to trade on a gold basis yet cannot afford the luxury of a full gold standard. It enables the exchange position to be adjusted quickly and easily according to the trade position; it enables trade to be conducted on a certain and non-speculative exchange basis; it permits reasonable control of the internal price level; it ensures considerable economy of gold, and it has at times proved very profitable to the country by which it is operated. In fact, its general advantages are such that it is now widely adopted throughout the world, and is even more widely advocated by those who consider that it affords a way out of the difficulties created by the post-war scramble for gold on the part of the world's central banks.

The gold exchange standard is not, however, entirely free from disadvantages, and two of these, in particular, may be mentioned. In the first place, it involves a complicated mechanism which is somewhat difficult to operate, although a paper currency is probably easier to "manage" than a silver currency. Secondly, a nation having a gold exchange standard and therefore holding large balances abroad, to some extent sacrifices its autonomy and absolute independence

in financial affairs, since its currency and exchange position must, of necessity, be closely bound up with those of the gold country with which it is linked. At the same time, this disadvantage is one which applies equally to *any* standard which involves the holding of reserves either in gold in a foreign centre, or in saleable exchange on that centre.

The Indian Exchange.—Possibly no system of exchange has given rise to such prolonged and widespread controversy as that of India, and although that country is now definitely pledged to the adoption of a gold standard, she is so strongly wedded to an internal currency of silver that her exchange organisation may fittingly be considered at this point.

The currency unit and principal medium of exchange in India is the *silver rupee*, containing 180 grains of silver, $\frac{11}{12}$ ths fine, which circulates side by side with notes issued by the Government, and is legal tender for any amount. Prior to 1893, India had a silver-standard currency based on the rupee, and her exchanges and trade were subject to those evil consequences, already noted, of frequent fluctuations in the gold price of silver. The urgent necessity for a stable basis of exchange decided the Government, after prolonged discussion, to undertake the regulation of the currency in order to stabilise the value of the rupee and steady the exchanges.

In taking this decision, the Government had to face the fact that, apart from the usual disadvantages attending the existence of a silver currency, India was beset with peculiar difficulties of her own. These were largely attributable to the fact that she was obliged to make large and regular payments abroad for the service of Government, for pensions, for military pay, and for purchases of bar silver for coinage, as well as on account of huge interest payments for the colossal amount of capital invested in her railways, her famine relief works, her irrigation schemes and agricultural enterprises.

The majority of such payments had to be made to the gold-standard countries, principally England, whereas the revenue of the Indian Government was collected entirely in terms of the silver rupee, the gold value of which fluctuated markedly with every change in the world price of silver. The consequence was that the finances of the Indian Government suffered severely, and conditions became serious during the early nineties of the last century, when the value of the rupee in terms of gold rapidly depreciated.

As a preliminary step the Indian mints were, in 1893, closed to the free coinage of silver, with the object of enhancing the value of

the currency by contracting its amount. The exchange gradually improved, and in 1899 the Indian Government undertook to issue in India rupees, or rupee notes, in exchange for gold sovereigns at the ratio of 15 rupees per £1, and definitely adopted the policy of maintaining the exchange with London at that ratio, i.e., at the value of 1s. 4d. per rupee, by selling exchange either in London or in India as was required to meet demands for remittances to and from India. In the same year, the English sovereign and half-sovereign were made legal tender in India at the rate of 15 rupees to the £1. This ratio was maintained for twenty years until 1919, when, in consequence of conditions arising out of the Great War, the value of the rupee was raised to 2s., i.e., 10 rupees per £1. In March, 1927, the value of the rupee in terms of gold was again altered to 18d., this change being accompanied by certain modifications in the currency and exchange system.

The Gold Exchange Standard in India.—Under the gold exchange standard system operative in India during the period 1893–1920, the Government of India undertook to issue silver rupees or rupee notes in exchange for gold at the ratio fixed by law, at the offices of the Imperial Bank of India in Calcutta, Bombay and Madras. The Government influenced the exchanges by maintaining large reserves of gold in India and London, against either of which it sold remittances when conditions required. So long as the exchange was fairly normal, the Government interfered as little as possible, often not at all. But when the demand for remittances caused Indian bills to rise in price, and the value of the rupee in London rose above the fixed parity, then the Secretary of State for India sold *Council Bills* and *Telegraphic Transfers* in London drawn on the Indian Treasuries, in quantities varying with the course of the exchange. These bills and transfers were paid for in London in gold, and were paid in India by the Indian Government in rupees. The gold received in London increased the reserve, and was used to pay off India's indebtedness to Europe, while the rupees paid out in India increased the circulation in that country.

If the exchange moved in the reverse direction, i.e., against India, the value of the rupee fell below the fixed parity, and the Secretary of State abstained from selling Council Bills or Telegraphic Transfers in London. If the downward movement in the rate continued until the exchange reached the point when it was profitable to ship gold from India, the Indian Government sought to prevent the export of gold by selling bills in India drawn on its reserve in London. These remittances, called *Reverse Councils*, were paid for in India in rupees,

thereby lessening the volume of currency in circulation. By retaining the rupees and notes so withdrawn from circulation, the Indian Government helped to restore the exchange and to maintain the value of the currency.

In both cases the net result was the same as if gold had been exported to, or imported from, London, but what actually happened was that the gold balance standing to the credit of the Secretary of State for India at the Bank of England expanded or contracted, and the rupee circulation in India varied proportionately. The Indian Government intervened when the value of the rupee moved sufficiently far from the fixed price to make profitable gold movements to or from India, and shipments of bullion were obviated as long as Council Bills could be obtained at lower rates than the cost of sending gold. The Government of India therefore not only undertook the supply and control of the currency in India, but also rendered great service to trade by remitting large sums of money on trade account. It obtained the money required for its disbursements in England and Europe, and provided bankers and merchants with a safe, simple, and extremely convenient form of remittance to and from India.

Although the State thus aimed at stabilising the exchange, a weak point was that whereas the Government was legally compelled to issue rupees in exchange for gold, it was not under an obligation to issue gold in exchange for rupees. Consequently, if the balance of indebtedness remained against India, and the supply of remittances by the State was exhausted, gold for export could not be obtained, and the rupee necessarily fell to its intrinsic value as silver bullion. This is what actually happened after the War, in spite of the Government's praiseworthy efforts to check the depreciation.

The Indian Exchange During and After the War.—The successful operation of India's Gold Exchange Standard was dependent on three important factors. In the first place, as the silver rupee was linked to gold on an artificially fixed basis, it could be maintained in circulation only if its market value as silver bullion remained *below* its artificial value as an exchange medium. If, for example, the rupee was exchangeable for gold at the rate of 15 rupees per sovereign, or 1s. 4d. per rupee, but its value as silver bullion reached 2s. in consequence of a rise in the world price of silver, then it was a practical certainty that most of the silver rupees in circulation would be melted down and sold as bullion either in India or abroad. When the gold value of the rupee was fixed at 1s. 4d., what may be termed the "melting point" was, in fact, reached when silver was about 43d. per

ounce, and much of the success which has attended the institution of the gold exchange standard in India can be attributed to the fact that during the twenty-five years from 1893 to 1917, the world price of silver did not exceed the limit here mentioned.

Secondly, it will be appreciated that if the Indian Government was to continue to provide remittances on India in London, and remittances on London in India, it had to maintain at its disposal a sufficient supply of rupees in India and of sterling in London in order to encash its drafts when they were presented for payment. It does not require much imagination to understand that such an adjustment of balances required considerable administrative ability on the part of the financial officials responsible. This was particularly the case in view of the third factor, which demanded that, in order to maintain a fair degree of stability in the exchange, there should be a rough correspondence between India's annual balance of indebtedness (i.e., including bullion, goods and invisible items) and the balance of obligations which had to be met by the India Office. In other words, if the balance of indebtedness was in favour of India, then the amount of that balance had roughly to coincide with the annual balance in sterling which had to be provided in London by the Indian Government.

For many years before 1917 these conditions were fulfilled to a remarkable degree, and the gold exchange standard operated so successfully in the case of India that it was hailed in many quarters as the ideal exchange system. The Great War brought a profound change. From 1914 to 1919 India enjoyed a period of great prosperity. Her goods were in great demand, the annual trade balance was much to her advantage, and the value of her currency unit appreciated considerably in consequence of the great rise in the price of silver. This prosperity was destined, however, to bring in its train financial difficulties of the first importance. The spectacular rise of silver to more than double its pre-war price made the coined rupee far more valuable as bullion than as a medium of exchange at 1s. 4d., and the Government of India was therefore forced to raise the exchange value of its unit in order to prevent a wholesale melting down of the currency. Between August, 1917, and February, 1920, the price of silver rose from 46d. per ounce to 89d. per ounce, and during the same period the official value of the rupee was raised by successive steps from 1s. 4d. to 2s. 7d. Such fluctuations were naturally most disconcerting to traders, and consequently, on the advice of the Indian Committee on Exchange and Currency, 1919, an Act was

passed in February, 1920, making the sovereign legal tender in India at the ratio of 10 rupees per sovereign, thus raising the gold value of the rupee from 1s. 4d. to 2s.

Once again, however, economic forces were to prove stronger than artificial regulations, and as from January, 1920, conditions inclined the other way. Foreign markets were glutted with Indian produce, and, whilst many European countries, owing to their inability to restore production, were unable to pay for Indian goods which they had purchased, others were resuming their pre-war export of machinery and manufactures to India. The trade balance thus moved against the country, and while there were heavy demands for Reverse Councils for making remittances to London, the sale of Council Bills on India fell off considerably and had eventually to be discontinued altogether. But this was by no means all. The difficulties attributable to the trade position were greatly accentuated by the rapid drop in the price of silver, which by March, 1921, had fallen to 30d. per ounce, just one-third of that ruling one year previously. Not unnaturally, full advantage was taken of such movements by speculators in bullion and exchange, while the constantly increasing import trade led to large transfers of capital from India. The effect of these conditions was immediately reflected in the exchange, which, in spite of the vast amounts of Reverse Councils sold by the Government at a heavy loss in an endeavour to save the position, fell away until ultimately it reached the low level of 1s. 3½d. The fixing of the value of the rupee at 2s. had thus proved abortive. Consequently, in September, 1920, it was decided to cease the sale of Reverse Councils, and the Government abandoned its efforts to maintain the exchange by artificial means, leaving the value of the rupee to find its own level according to the prevailing market price of silver.

Fortunately, the results attending this decision were much less marked than might have been anticipated. After the violent reaction of 1921, India's trading position tended gradually to improve, the price of silver remained fairly steady, and consequently the value of the rupee and the Indian exchange fluctuated within comparatively narrow limits in the neighbourhood of 1s. 6d.

As might be expected, the fact that the value of the rupee remained fairly stable at this figure over an extended period gave rise in many influential quarters to the demand that the exchange should be stabilised at 18d. The proposal resulted in an acute and prolonged controversy. An important section of the trading community favoured

a return to the old basis of 16d. which India had so successfully maintained for nearly twenty-five years. Gradually, however, it became evident that Indian public opinion was strongly in favour of a complete reorganisation of the currency and exchange system with the object of superseding the gold exchange standard—apparently regarded “as a brand of subjection and inferiority by Indians”—in favour of a full gold standard—“considered as the sign and symbol of political freedom by the Indian people.”

The absolute breakdown of the gold exchange standard after the Great War was a strong factor in favour of reorganisation. The failure of India's exchange system had thoroughly disturbed her trade, had given rise to social, economic and political difficulty, and had involved her Government at one time in a loss of £25,000,000 in an endeavour to maintain the fixed ratio. In 1925 a Royal Commission was appointed “to examine and report on the Indian exchange and currency system and practice, to consider whether any modifications are desirable in the interests of India, and to make recommendations.”

In a long and exhaustive report the Commission indicated its conclusion that India should supersede the gold exchange standard by a *gold bullion standard*, based on a silver rupee definitely linked to *gold*, and not merely to sterling, at the rate of 8·47512 grains of pure gold per rupee. The value of the rupee in terms of sterling would thus be fixed at 18d., or 13·33 rupees per £1, but the Commission recommended that the sovereign and half-sovereign should be demonetised and the rupee made sole legal tender. The Commission also advised the transfer of the control of the currency and exchange of India from the Government to a new central bank, which should be obliged to buy *and sell* gold bullion for rupees *without limit*, and for any purpose—internal or external—at rates based on the prescribed parity. It was maintained that this obligation would not only ensure the strict convertibility of silver rupees and rupee notes into gold, and therefore firmly establish the Indian currency on a gold basis at the fixed ratio, but would also ensure that the exchange with gold-standard countries would be confined between the upper and lower gold points, marking the cost of moving gold to and from India; e.g., as between India and London 1s. 6 $\frac{3}{16}$ d. and 1s. 5 $\frac{3}{4}$ d. respectively.

While, therefore, the adoption of these arrangements would give India the benefit of a cheap and acceptable currency for internal use, the obligation to convert that currency into gold, not only for export *but for any purpose*, would give her all the advantages of an absolute gold standard. The principle would be established “that gold is the

standard of Indian currency at a fixed ratio, and that the currency authority admits it, and must maintain it.”* At the same time, the compensatory action of the movement of gold, both on the exchanges and on the price level, would be maintained. The sale of gold bullion for notes would contract the currency, lower prices and correct the exchanges by increasing exports and diminishing imports, while the purchase of gold bullion with rupees would have the reverse effect of expanding the currency, increasing prices and correcting the exchanges by encouraging imports at the expense of exports.

Effect was given to several of the proposals of the Commission by the Indian Currency Act, 1927. The 18d. ratio and the demonetisation of the sovereign are now law, but pending the establishment of the new Central Bank, the Indian Government as the currency authority is placed under obligation to *buy* bar gold, but is given the option to *sell* for rupees either gold or gold exchange. The Government will also continue, as hitherto, the sale of remittances to and from India in the manner operative under the Gold Exchange Standard. India is thus at a transition stage between the gold exchange standard and the full gold bullion standard which she will ultimately adopt, but her present currency and exchange system, although a “hybrid,” will afford her people the satisfaction of having a unit which will be free from fluctuations in terms of other gold currencies, and which will have a steady and determinate international value.

The Services of the Indian Exchange Banks.—Indian Government remittances have so long taken a leading part in the financing of Indian trade, that it is frequently forgotten that the Indian banks render considerable service in effecting settlements on trade account. Bills are drawn on or by Indian merchants in the usual way, and are sent forward for collection through the banks or are sold outright to them. And apart from buying and selling bills, the banks open credits either in London or in India, undertake acceptance business, arrange for the movement of bullion, and undertake collections in one country for their customers in the other.

An interesting point in connection with the price charged by the London banks for remittances to India has recently arisen as a result of the inauguration of the regular air mail service to that country. The time taken by the air mail is now so much less than it is by the sea route that sight drafts forwarded by the former means are presented for payment much sooner than would otherwise be the case, and are consequently charged for at 1/32nd of a penny more per

* *Report of the Indian Currency Commission*, § 61.

rupee than the cheque rate applied to drafts forwarded by the sea route in the usual way.

Finally, it may be observed that payments to or by India are largely made in sovereigns or in gold bars, which, in ordinary circumstances, can be easily exchanged for or purchased with rupees or rupee notes. India is, in fact, a most voracious consumer of gold, large quantities being regularly imported from the London Bullion Market and direct from South Africa (see Chapter XI). Much of this gold is hoarded or used for ornament, in which case it partakes of the nature of an ordinary commodity import.

Sterling (and other Currency) Exchange Standards.—One great lesson which the world has learnt from the monetary experiences of India is that a gold exchange standard which is based on a given gold currency unit will continue to function successfully only so long as the value of the basic gold currency is absolutely on a par with the value of gold. India's gold exchange standard in pre-war days was in reality a "*Sterling exchange standard*"; the rupee was linked to sterling and not directly to gold. Consequently, as soon as sterling and gold became no longer synonymous, the gold exchange standard in India became utterly disorganised.

It is for this reason that India and several other countries which have adopted the gold exchange standard since the War, have fixed the value of their currency, not in terms of another currency such as the pound sterling or the dollar, but in terms of a given quantity of gold. These post-war gold exchange standards have, therefore, much more right to the description than the so-called gold exchange standards of pre-war days, and the latter are probably best distinguished as "*currency exchange standards*", because their basis was a gold standard currency and not gold itself. The value of a true gold exchange standard currency varies only with the value of gold, whereas the value of a monetary unit which functions as part of a currency exchange standard must fluctuate with every variation in the gold value of the currency on which it is based.

The present currency system of the Irish Free State affords an example of a pure currency exchange standard, inasmuch as the Irish legal tender notes are directly convertible into sterling deliverable in London. But the fortunes of Ireland and Great Britain are so insolubly blended that any other system would be both inconvenient and uneconomical, and it is unlikely that the Free State will suffer any special disadvantage from the linking of her currency with the pound sterling instead of with gold.

One other important point may be mentioned in this connection. It has been stated in the previous chapter that the value of gold at the present time is largely determined by the value of the American dollar, so that currencies which are now linked to gold on the basis of a gold exchange standard are in effect merely linked to the dollar. In other words, such currencies are at present functioning on a *dollar exchange standard*, and this is a position which will persist until the vast stocks of gold, now accumulated in the United States, are more evenly distributed throughout the world, and until the European countries wipe off the greater part of the war-created indebtedness due to their American creditors.

CHAPTER XIV

THE GREAT WAR AND THE EXCHANGES

It has been stated at several points in the preceding pages that in consequence of the Great War the foreign exchanges were totally disorganised. The Mint Pairs of Exchange between the gold-standard countries became items of historical rather than of practical import, while the specie points were entirely inoperative as limits to the rise and fall in the rates of exchange. This demoralisation was due principally to the fact that the financial strain resulting from the War led to the issue in many countries of vast quantities of inconvertible paper money. Gold, and in some cases silver also, was driven from circulation, and the free export of the former metal was prohibited almost everywhere.

Much of the gold currency thus withdrawn was hoarded, but more generally it found its way into Government or bank reserves to provide some backing for the issues of paper, and to be used for export when required. Prices in all countries rose to unprecedented levels, and throughout Europe the disorganisation of the national currencies created an atmosphere of such uncertainty that business activity was stifled and international trade demoralised.

The collapse of the currencies was accompanied in a number of cases by the total collapse or serious impairment of the credit of the countries concerned. Broadly speaking, the War destroyed the economic life of the chief European peoples, and so affected the other nations of the world that the whole fabric of national life and the wider international relationships had to be reconstructed. In the case of Russia and Germany, particularly, disorganisation was still further accentuated by political and social revolution.

It is not possible within the limits of this book to treat exhaustively of the unparalleled effects of the War on the exchanges, but it is proposed to outline briefly the outstanding facts relative to the War and post-war currency and exchange position of the principal nations.

The Effects of Inflation.—The painful, sometimes tragic, economic

sufferings of the world since the Great War have been largely due to monetary mismanagement, evidenced mainly by the interminable inflation of the various currencies by the issue of inconvertible paper. Inflation may be defined as an *abnormal* and *conscious* expansion of currency and credit beyond the amount necessary to meet the need of internal trade and exchange at the existing level of prices. Under a properly working gold standard, such as existed in this country in pre-war days, and such as is now functioning fairly successfully throughout the world, an expansion of currency and credit from time to time takes place automatically to meet seasonal trade requirements and the additional demand arising from normal economic progress (see page 189). But the evil of inflation lies in the fact that the supply of currency and credit is *arbitrarily* increased. The Government, or the Central Bank acting on Government instructions, prints paper money, not in response to trade demands, but to meet extraordinary expenditure. In addition, it inflates credit by encouraging the extension of bank credit either to finance public subscriptions to Government loans or to finance the payment of high taxes imposed for emergency purposes.

Whichever method is adopted, the ultimate result is to place more purchasing power in the hands of the community than is strictly necessary. Prices rise, wages rise, still more currency is requisitioned from the banks, credit expands, prices rise again, and so the vicious circle goes on. Reduction of the excess currency is a most difficult process, and almost inevitably calls for drastic action.

The Problem of Stabilisation.—When we look back to the life and death conditions existent during the War, it is difficult to see how the vast State expenditure in the belligerent countries could have been met without some degree of inflation. But a halt had to be called somewhere. Every increase in the quantity of the currencies subject to inflation lowered their purchasing power in terms of more stable currencies, induced constant and violent fluctuations in the rates of exchange, and made trade well-nigh impossible. Something had to be done if international business was ever to be resumed on a reasonable, non-speculative basis.

The problem was tackled with zest by statesmen, financial experts and economic theorists, in almost every country. Theories and counter-theories in a bewildering mass were let loose upon the already past-suffering world, whose financial ills seemed scarcely curable in view of the inability of those responsible to agree upon a remedy. Gradually, however, one vital fact emerged from the welter of conferences, resolu-

tions and discussions. It was universally recognised that the main stumbling blocks to progress and rehabilitation were uncertainty and insecurity. The need of the world was *stability*—stability of internal prices so that industry could thrive and the people prosper, and stability of the external exchanges so that international trade could be resumed with some certainty as to payment and ultimate profit.

Influenced by these considerations, the International Economic Conference held at Genoa in 1922 adopted a recommendation of its expert committee advising the immediate stabilisation of inflated currencies as closely as possible to their then existing values in terms of gold, i.e., in terms of the gold-standard currencies.

Devaluation and Deflation.—Now the stabilisation of a currency at an existing depreciated value meant, in effect, that the monetary unit must be regarded for the future as being worth, in terms of gold, only a fraction of its existing theoretical value. It meant the acceptance of the fact that the restoration of the pre-war value of the currency had become impossible, and that the currency must be *devalued* by reducing its legal gold content to that extent necessary to make the mint parities with gold-standard centres approximately equal to the existing rates of exchange.

To several countries, notably France and Italy, this depreciation of the value of their currency involved so great a blow to the national pride that they declared themselves determined to struggle on to the last with the object of restoring the pre-war gold values of their monetary units.

Their alternative to devaluation was *deflation*, defined by Professor Cassel * as “a process by which the internal value of the monetary unit is increased. This means a deliberate raising of the purchasing power of the unit in regard to commodities and services—i.e., a general and uniform reduction of prices, wages and salaries as measured in terms of the monetary unit.” This is effected by restricting the supply of the means of payment and consequently reducing nominal purchasing power in the hands of the public. Such action involves a rise in the central bank rate, a reduction of credit facilities and a greater discrimination in granting loans. At the same time, increased taxation and reduced Government expenditure are usually necessary in order to raise a fund for the reduction of excessive note issues. In consequence of the rapid fall in prices, capital development practically ceases, while repairs and renewals are reduced to a minimum. Pro-

* *The World's Monetary Problems*, p. 112.

ducers curtail their output, and workers suffer through unemployment. Profits diminish and trade generally becomes depressed.

Both inflation and deflation have thus most important psychological effects on the economic organisation. While inflation tends to over-confidence, dangerous speculation, and an extension of business which is not justified by the real economic position, deflation tends to lack of confidence, stagnation, and a greater general depression than is justified by the underlying strength of the economic fabric.

It was, of course, recognised by France, Italy and other similarly placed countries who favoured deflation, that an *immediate* return to the pre-war basis was out of the question, since that would involve a far too violent fall in prices and profound economic disturbance. The effect of such a step would be to place on the depreciated currency an artificial exchange value which would hopelessly overvalue it in the foreign exchange market, i.e., its artificial value, when converted into foreign currencies, would give it a purchasing power abroad greatly in excess of its purchasing power at home. As a result, trade would be seriously disturbed. Foreigners would rush to sell their goods in so profitable a market, but home exporters would be discouraged from selling goods overseas. Imports would thus be encouraged and exports discouraged. Unless active Government measures were taken to support the exchange, as by loaning funds abroad or raising adequate credits in other countries, the country would be drained of its gold to meet the adverse balance of payments. These conditions would persist until the influx of goods and the efflux of gold had raised the home purchasing power of the currency to its pre-war value. But the final cost, in the case of a badly depreciated currency, would far outweigh the sacrifice involved.

Although, for these reasons, the immediate restoration of the pre-war parity was recognised to be impossible, the countries which favoured a *gradual* return to that parity by steady deflation were slow to realise the evil and cumulative effects of such a policy on the economic life of the community, and thus many valuable years were wasted in the futile hope that pre-war conditions could ultimately be re-established by a gradual process.

The Case For and Against Deflation.—The arguments in favour of deflation are largely psychological and ethical. People in the countries which had suffered inflation could not get away from the idea that the War and post-war conditions were temporary disturbances which would ultimately give way to the “ideal” conditions of the “good old pre-war days.” Such people overlooked the fact that the world’s industrial

and financial lay-out was changed completely by the War, and that adjustment to the *new* conditions was essential if progress was once more to be achieved.

A more reasonable psychological argument was that devaluation involved the admission that the currency concerned had become hopelessly depreciated—an admission regarded as damaging to the national pride, credit and reputation. Undoubtedly, this argument was one which could not be ignored in the case of our own country, with its world-wide financial interests and its position as an international monetary centre. But it was of less moment in the case of countries such as France, Belgium and Italy, whose credit and national prestige were already damaged to a considerable degree by the violent fall and distressing fluctuations which had taken place in the value of their currencies.

On ethical grounds deflation was championed because it was considered that devaluation was not a policy worthy of any Government. Many people held that the Governments concerned were morally bound to restore the *status quo ante* by remedying the serious injustices between individuals which inflation had caused. But those who advanced this contention overlooked the fact that deflation *would* not and *could* not restore the *status quo*. In most countries, inflation had been so prolonged that time and change had already effaced many of its injustices. Investments had changed hands, debts had been transferred, and only those claims which dated back to the beginning of the inflationary period could be in any way adjusted by deflationary measures. In the majority of cases, the gain would probably be greater than the loss, and, as likely as not, deflation would create more injustice than it would remedy.

The practical objections to deflation are even more weighty. A long-drawn-out restriction of credit necessarily imposes a serious drag upon industry and trade, since money-profits, which provide the incentive to production, are progressively reduced. And the evil is more than psychological: for *real* profits are also reduced, since costs fall less rapidly than the selling price of the product.

Moreover, deflation, by effecting a change in the value of money, causes a serious redistribution of wealth. The loss to the producer and the borrower—the *active* members of society—is a gain to the investor or lender—the *inactive* members of society. Thus social relationships are disturbed and property rights are seriously infringed.

On these and other grounds the most far-seeing of the world's financial experts were soon convinced that deflation is rarely desirable.

It was generally (although by no means universally) agreed that, in the peculiar position of Britain, some degree of sacrifice to restore the pre-war gold value of sterling was justified. But in the case of other countries whose currencies had been subject to much greater depreciation, theorists recognised, long before statesmen would admit the fact, that deflation was not only undesirable but quite impossible, since any attempt to restore the pre-war value of the currencies concerned would have imposed an intolerable burden on the taxpayer and upon industry.

The Choice between a Currency's External or Internal Value.—It will now be apparent why most countries which had suffered from an inflated currency were ultimately compelled to resort to *devaluation* of the monetary unit in order to achieve stabilisation with the least possible friction and economic disturbance. Such countries had the choice of three alternatives for the new gold value of the currency: (a) the *external* value of the unit as indicated by the prevailing exchanges with the important gold-standard centres, (b) the *internal* value of the currency as revealed by the nation's price index numbers; and (c) an *entirely new value* determined after expert examination of the financial and monetary conditions and needs of the country.

In accordance with the purchasing power parity theory of the exchanges, the tendency is for the external value of a currency to be determined mainly by its internal value. But this adjustment is very indefinite, particularly in the case of an unstable currency whose value is subject to speculative and psychological influences. Usually the currency is either *overvalued* or *undervalued* by the external exchange.

OVERVALUATION implies that the value of the currency in the foreign exchange market is *higher* than its internal value. In other words, home prices converted into gold at the current rate of exchange are higher than world prices, and thus a stimulus is given to imports and a handicap is placed on exports.

UNDERVALUATION, on the other hand, implies that the value of the currency in the foreign exchange market is *lower* than the internal value; in other words, home prices at the current rate of exchange are lower than world gold prices. As a result, exports are stimulated and imports discouraged.

Such undervaluation may result from speculative selling of the currency concerned in the exchange market, as happened for instance in the case of the "flight" from the franc and from the mark, when, owing to the fear of further inflation and lack of confidence in the future

of these currencies, they were wildly sold to an extent that was not fully justified by their internal valuation.

If a currency which is internally depreciated is thus undervalued in the foreign exchange market, it is said to be *specifically* depreciated, and the amount of this specific depreciation measures the extent of the divergence of the prevailing exchange rate from the purchasing power parity.

Now, a Government which embarks on a stabilisation scheme must decide at the outset whether the currency shall be stabilised at its lower or at its higher value. In practice, this means that the currency may be stabilised either at the *current rate of exchange* or at an *alternative rate*, higher or lower than the current rate. Whichever alternative is finally adopted, some internal adjustment is bound to be necessary, and, as Professor T. E. Gregory has pointed out, the effects of stabilisation on the economic life of the country depend, not on whether the internal or external value is chosen, but on whether the higher or lower value is adopted as the future basis.

Stabilisation and Adjustment Crises.—If a currency is undervalued, and the external value (i.e., the lower value) as indicated by the current rate of exchange is adopted, the internal value will have to be *forced down* to the lower external value. This implies that internal prices must be raised, by a continuance or resumption of inflation, until they reach a level at which they are in equilibrium with external prices at the stabilisation rate adopted. While inflation is proceeding, exporting trades will be stimulated by the rising prices and imports will be discouraged. At the same time, internal activity will be stimulated by the desire to acquire *goods* rather than to hold a currency which is continually declining in value.

When once the necessary adjustment is achieved and parity is reached, the discontinuance of the inflationary process will result in the checking of the temporary boom, and cause what Professor Gregory has described as a *stabilisation crisis*. The country must then face the hateful necessity for damping down expansion, and inflation must be stopped, otherwise internal and external values will once more get out of touch.

Such has been the experience of several countries whose currencies have been reconstructed after a period of inflation, notably Germany and Belgium, where the stabilisation rates adopted did not fully represent the internal value of their currencies.

If, on the other hand, a currency is overvalued by the external exchange, and the higher value of the currency is adopted, the internal

value will have to be *forced* up to the higher external value, in other words, home prices must be forced *down* by deflationary measures. This type of crisis Professor Gregory distinguishes as an *adjustment crisis*, ordinarily involving trade depression and unemployment. This was the post-war experience of England and Sweden.

The alternative process of stabilising the currency at a new rate of exchange amounts, in effect, to stabilising the currency at its internal value. If, therefore, the currency is *overvalued* externally, the rate chosen will give the currency a *lower* value than is represented by the existing rate of exchange, while if the currency is *undervalued*, the rate of exchange chosen will give the currency a *higher* value than that actually prevailing.

Whichever method of stabilisation is adopted, a crisis of one kind or another is unavoidable so long as there is a divergence between the internal and external values of the currency concerned. Some classes in the community are bound to lose while others gain. On the grounds of equity there is much to be said for raising the value of a depreciated currency, but, in practice, the problem becomes one, not of ethics, but of expediency, and it is impossible to ensure justice for all classes. The simplest practical solution is undoubtedly to stabilise at the rate which is calculated least to disturb existing conditions, and post-war experience would seem to indicate that the adjustment crisis, involving internal deflation, is the more painful and prolonged method. In any case, the ultimate effects of the stabilisation process necessarily depend on the magnitude of the divergence between the internal and external values of the currency, on the elasticity of the factors of production, on the country's economic organisation and on the skill of those responsible for its monetary policy.

Stabilisation "De Facto" and "De Jure".—In most countries which determined on a policy of stabilisation, the first step taken was to stabilise or "peg" the foreign exchange rates on the important gold-standard centres within narrow limits of the proposed new parity. This stabilisation *de facto*, as it is called, was achieved by the establishment of credits and the raising of loans in foreign centres, with the object of enabling the central bank of the country concerned to buy or to sell exchange as was required to keep the gold-exchange rates at or near the fixed value. After some experience of the practical operation of the new parity, the position was legalised by a stabilisation *de jure*, i.e., by the passing of a law defining the new gold content of the monetary unit and thus definitely fixing its future mint parities with other countries on the same standard.

Gold or Dollar.—The object of every such stabilisation scheme was, of course, to fix the value of the monetary unit in terms of gold, and thereby establish a definite basis for the exchange of the unit against the currencies of other gold-standard countries. Gold is now chosen almost universally as the ultimate basis of the value of a currency because by long experience it has been proved to be the most reliable index of value throughout the world.

But it must be reiterated that the value of gold is by no means absolute and unfluctuating. In terms of commodities that value has varied considerably over a long period of years. Moreover, as was briefly observed in Chapter XII, the value of gold at the present time, as represented by the general level of world prices, is considered by many of the world's foremost economists to be determined by the value of the U.S. dollar, as that value is determined from time to time by the policy of the American Federal Reserve Board, which, in seeking to maintain price stability in the United States, has for some time adhered to the costly policy of burying in the vaults of Washington the gold which the miners of the Rand have laboriously brought to the surface.

Mr. McKenna, speaking at the 1928 Annual General Meeting of the Midland Bank, directed attention to the same conditions. "If," he said, "the price level outside America should rise in consequence to an increase in the supply of gold, America would absorb the surplus gold; if, on the other hand, the external price level should fall in consequence to a shortage of gold, America would supply the deficiency. The movement of gold would continue until the price levels inside and outside America were brought once more into equilibrium."

If this contention is correct, a country which nowadays embarks on a stabilisation scheme sets out, in effect, to link up the value of her currency with the value of the dollar, and "under such conditions, the standard selected by the Federal Reserve System for stabilisation of the dollar—which in any case must always be its aim—becomes a matter of extreme importance".*

It is scarcely to be wondered at, therefore, that many well-known writers advocate the establishment of a standard which would free Britain and other countries from their monetary dependence on American policy, while others have suggested that the position would be improved by the establishment of close co-operation between the leading Central Banks (and particularly the Bank of England and the Federal Reserve Board) with the object of ensuring stability in the general price level and thus in the value of gold throughout the world.

* Professor Gustav Cassel, in the *Financial News*, January 21, 1929.

War and Post-War Problems in the Principal Countries.—Most countries which experienced currency mismanagement during and after the Great War have now stabilised their currencies and have restored, or are in the process of restoring, the gold standard. Without exception they have experienced, in varying degrees, the unhealthy effects of inflation, and have had either to accept devaluation or submit to the painful process of deflation. In the Scandinavian countries, in Holland, in Argentina, in Switzerland and in Great Britain, the inflation was relatively slight, and all these countries have been able to return to gold at the pre-war parity.

In Great Britain, the policy of the authorities in deflating with the object of restoring the pre-war parity has been condemned in many quarters, but by most people it was considered to be the only policy which could be safely followed. France and Italy were among those countries which wasted many valuable years on the road to economic recovery by hopelessly toying with the idea that their badly depreciated currencies could one day be restored to their pre-war gold equivalents. Ultimately, they, in company with Rumania, Bulgaria, Greece and Czecho-Slovakia, were compelled to pocket their pride and to face devaluation at greatly reduced gold values. Denmark and Norway first attempted to restore their old gold parities by gradual deflation over an indefinite series of years, but their economic life was so seriously affected, unemployment became so distressing, and such heavy losses were occasioned, that they were obliged to precipitate matters by forcing up the value of their monetary units to that degree necessary to restore the old parities.

Belgium and Finland avoided much of the disturbance in which other nations became involved by instituting new units for external purposes with values approximating closely to those existing in the foreign exchange market. Germany, Austria and Hungary were forced to resort to the same expedient.

Much of the progress which has thus been made in European reconstruction may be attributed to the ultimate, though gradual, recognition by statesmen that financial and economic questions should, as far as possible, be kept apart from political considerations. When the havoc wrought in Europe by the Great War is fully realised, it must be admitted that the degree of stability and of confidence which has since been achieved is really quite remarkable. The year 1924 will be specially memorable for the manner in which the gravest apprehensions as to Europe's future were suddenly removed by the adoption of the Dawes Plan, based on the recommendations of a small committee

of experts to whom was given the almost superhuman task of finding a way out of chaos, of devising a scheme by which a reasonable amount of reparations could be extracted from Germany without depreciating her currency and without further disorganising her economic structure, and of settling upon some basis of justly apportioning the reparation receipts among the many conflicting claimants.

Britain.—The outstanding facts of the War, so far as they affected this country, may be briefly reviewed. For practically five years, Britain was engrossed in production, not for exchange, but for destruction. Great masses of the people were withdrawn from the fields and workshops to swell the national army, and their places were taken by women, old men and boys. All had to be clothed and fed, mainly from foreign sources, but there were few exports to pay for the imports. Consequently, as our exports dwindled, our enormous demand for raw material, for munitions and for other war supplies, both on our own behalf and on behalf of our Allies, caused our imports to increase by leaps and bounds. Our balance of *trade*, which even at the best of times is extremely unfavourable, became almost ruinously adverse. Our invisible exports practically ceased by reason of the employment of our mercantile marine for War purposes. The profitable earnings of our bankers, underwriters, shippers and brokers were greatly curtailed by the disorganisation of international business, and the sterling exchanges were compelled to bear the strain of the vast payments made by Britain in her capacity of financier to the Allied cause.

Payment of the heavy balances due to non-belligerent supplying States had to be effected by any means available, i.e., by shipment of gold, or by sale of foreign securities held in this country, or by raising loans and establishing credits in the supplying State. The necessity for conserving gold led to its disuse as currency, and to the substitution of the emergency issue of Treasury notes. These, owing to the increasing demands for Government disbursements on account of munitions, military pay and allowances, had to be issued in ever-increasing quantities. The inflation of the currency in this way, coupled with a world shortage of raw material, due both to under-production and increased demand, caused a general rise in prices. This occasioned further currency expansion and thus the vicious circle continued: inflation, rising prices, further inflation and still higher prices.

The prevalence of high prices in this country naturally encouraged imports and discouraged such exports as we were able to make, thus accentuating the adverse trade position. Ultimately, our currency

became markedly inflated, its purchasing power relative to the currencies of the so-called "neutral" countries gradually declined, and consequently the rates of exchange between those countries and London remained for several years at distinctly unfavourable levels.

The Sterling-Dollar Rate.—Clearly transcending in importance all other rates of exchange is that between Great Britain and the United States, for not only is this rate indicative of our position relative to the world's financially strongest nation, but during the period when sterling was divorced from gold, it measured also the extent of the depreciation of the pound as represented by the practically inconvertible Treasury note.

The consistently adverse movement of the dollar-sterling exchange during and after the Great War naturally caused the greatest anxiety to financial and political leaders in this country, although the unfavourable position was all that could be expected in view of the extent of the contributory factors. America's late entrance into the War, her relatively insignificant sacrifices of both men and money, and her enormous supplies of food, raw materials, silver and munitions to the Allies at high prices, placed her in a superlatively good financial position relative to this and other belligerent nations. The external value of sterling was necessarily influenced unfavourably by the cessation of our exports, both of goods and services; by the great decrease in our investment income as a result of the sale of our holdings of American securities; and, finally, by the fact that, since the bulk of Allied financial operations with the United States, including loans, were passed through London, the dollar-sterling exchange became more than ever a New York-European rate. The adverse influence of these factors was, of course, accentuated by the fall in the purchasing power of our currency in consequence of its inflation by the issue of the inconvertible Treasury notes.

The magnitude of the burden placed on the exchange was such that it could not be dealt with by any ordinary methods. Gold was sent in large, but totally inadequate quantities, until the unparalleled influx of the metal into America was regarded with almost as much apprehension as was its continued efflux from Europe. Ultimately, the Federal Reserve Board was compelled to neutralise the effect of the inflow of gold by taking steps to prevent its operating as a basis for the undue expansion of credit. But all the gold in the world would have been nothing like sufficient to pay Europe's debts to the States; hence loans and credits of vast amount were arranged in that country by Britain and her Allies, while practically all American securities held

by people in this country were requisitioned by the Treasury, and were sold as and when required in order to support the exchange.

By the adoption of these methods, the Exchange Committee in London "pegged" or stabilised the New York exchange at the rate of $\$4.76\frac{1}{2}$ per £1, from January 6, 1916, to March 20, 1919. On the latter date control was removed, and the exchange fell away steadily and persistently, until in February, 1920, it had reached the extremely low figure of $\$3.20\frac{1}{2}$.

The Cunliffe Committee on Currency and Foreign Exchanges, 1918.

—In 1918, the financial difficulties with which the country was faced induced the Treasury to appoint a committee of bankers and business men to investigate the problems which had arisen in connection with the currency and the foreign exchanges, and to consider the powers, functions and working of the Bank of England. The recommendations of the Committee were subjected to much criticism, but subsequent developments have shown them to be fundamentally sound. Briefly, the Committee's main recommendations were: (a) The restoration of the gold standard at the earliest possible moment to lessen the handicap to industry and to restore the financial and commercial status of Britain as the business centre of the world. (b) The cessation of Government borrowing, so as to lessen the credit expansion and the issue of uncovered Treasury notes. (c) The reduction of Government indebtedness, particularly of that portion held by the banks as Government securities and investments. (d) The restoration of the free market for gold, and of the effectiveness of the discount rate of the Bank of England as the recognised machinery for preventing a drain of gold. (e) The fixing of the maximum fiduciary issue of Treasury notes in one year as the fixed maximum for the following year. (f) The payment of currency notes in gold on demand in London only, and (g) The institution of arrangements whereby the Bank should be given cognisance of all exports of gold, be required to establish a central reserve of £150 millions of gold, and ultimately be given complete control of the issue of currency notes.

The Gold Standard Controversy.—The conclusions reached by the Cunliffe Committee were generally accepted, and succeeding Governments endeavoured to give effect to its recommendations. Nevertheless, a considerable body of expert opinion strongly opposed both the findings of the Committee and the measures adopted by the Government to give those findings practical effect. As a result, monetary opinion in this country has sharply divided into two opposing schools of thought, the *Sound Currency School* and the *Managed Currency School*.

The Sound Currency or *London School*, comprising most of our leading bankers and City men, unhesitatingly affirmed the recommendations of the Cunliffe Committee, and maintained that Britain should make every possible effort to return to the complete gold standard and, to that end, should restore her rate of exchange with New York to parity as soon as possible.

Possibly the most important argument of the Sound Currency School was the contention that the gold standard had been proved by long years of experience to be the only certain and automatic regulator of fluctuations in prices and in the foreign exchanges, and that such a dependable exchange medium, particularly for *external* purposes, is of vital importance in the case of a country such as Great Britain, whose very existence depends on large purchases of food and materials abroad and on the sale to other nations of manufactured products. It was maintained that London's international position is bound up with the gold standard, and that her prestige demanded its restoration at the earliest possible moment after the War, since the use of the sterling bill as an international exchange medium depends essentially on its convertibility into gold, and it could not retain its general acceptability if it were reduced to representing a paper currency only. Those who held these views also considered that the currency conditions and the price level which had prevailed since the Great War were abnormal, and that a return to pre-war conditions was both necessary and desirable, while, in response to the objection that stabilisation could not be attained in the face of the persistent deflation in other countries, they argued that the best method of neutralising deflation abroad was to stabilise rates by a corresponding deflation at home.

In reply to the arguments of the advocates of the "managed currency" which was proposed as an alternative, it was pointed out that "in a country like England, so subject to foreign influences on her trade outlook, depression might easily arise that could not be cured by domestic monetary devices", and also that a currency subject to State control "opens a door to interference by the House of Commons in a sphere in which its activities are far from desirable. The gold standard frees us from muddling with our money by politicians, has worked right well in the past, and may do so again, whenever the politicians succeed in giving us peace and security and confidence and goodwill".*

Issue was joined with the advocates of an immediate return to gold by the Managed Currency School, the acknowledged leader of whom,

* *Bankers and Credit*, by Hartley Withers.

Mr. J. M. Keynes, has gone so far as to describe the gold standard as a "barbarous relic" * and has expressed strong opinions concerning the wisdom of the steps taken to bring sterling to parity with the dollar. According to this group of economists and prominent industrialists, the stability of *internal prices* is of greater importance than the stability of our exchange rates with other nations, for the main object of the authorities responsible for our monetary policy should be to remedy those fluctuations in prices which cause such hardship between debtor and creditor and between one class in the community and another. The gold standard, they maintain, has signally failed to ensure such stability, and its adoption throughout the world is undoubtedly one reason for the cyclical depressions which have characterised modern civilisation.

Accordingly, they suggest that in place of our having one commodity—gold—as the measure of value and standard of deferred payments, we should substitute instead a *tabular standard of value*, consisting of a group of representative commodities the total value of which would be less likely to fluctuate over a period than that of a single commodity such as gold. Before the War such a system, sometimes described as an *isometric* standard, had been advocated by the American economist, Professor Irving Fisher, and it undoubtedly has many theoretical attractions.

In brief, the advocates of a managed currency contend that internal price steadiness can best be achieved by the issue of an inconvertible currency, the value of which is stabilised in terms of a group of selected commodities, and the circulation of which is expanded or contracted by a careful regulation of credit according to the needs of trade.

If such a system existed and the level of prices tended to rise, the Bank rate would be raised, loans would be called in and deposits attracted to the banks, thus causing surplus notes to return for cancellation. On the other hand, if prices fell, the Bank rate would be lowered, and the note issue and credit would expand until prices rose again. Within narrow limits, therefore, the paper pound would always purchase the same quantity of goods internally; manufacturing costs and selling prices would be accurately determinable, and wage disputes would be reduced to a minimum.

Mr. Keynes has stated that the most important argument in favour of such a currency is "that fluctuations of trade and employment are at the same time the greatest and most remediable of the economic diseases of modern society, that they are mainly diseases of our credit

* *A Tract on Monetary Reform.*

and banking system, and that it will be easier to apply the remedies if we retain the control in our own hands". By so doing, we should obviate the serious disturbance of industry and trade which must result from a persistent policy of deflation with its consequent uncertainty as to the future course of commodity prices. It is further contended by the supporters of these proposals that, on our departure from the gold standard, we in fact tacitly assumed a managed currency, and that our complete severance from our old allegiance would be attended by the benefits of a scientifically regulated currency and of stabilisation. Our main object should be to keep sterling prices steady, and if this was achieved our gold reserves could be utilised, not to maintain convertibility, but to regulate our gold exchanges with the U.S.A. and other countries, when they are affected by temporary or occasional causes. Finally, it was urged that the return to gold would mean the dependence of our price level on the American price level, and consequently that any change in American monetary policy might cause great hardship to this country.

From a purely scientific standpoint, the proposals for a managed currency are undoubtedly attractive, but a number of objections would need to be met before such a scheme could be put into practice, particularly in such a country as our own. In the first place, the maintenance of internal price steadiness does not guarantee freedom from exchange fluctuations, and the achievement of any degree of exchange stability would appear to necessitate international agreement on monetary policy—a difficult matter at the best of times. Again, the compilation of index numbers is still an art rather than a science, and it does not seem that sufficient advance has yet been made in this direction to justify the management of our currency on a basis or bases known to be arbitrary and inexact. In any case, it appears inevitable that any monetary policy adopted would be subject to violent criticism, in view of the different interests which are necessarily affected by changes in the value of the currency. Another very pertinent objection is that it would be difficult, if not impossible, to ensure that a managed currency should be free from political interference, especially when the fortunes of the Government are, as at present, so intimately bound up with the success of its financial policy. The final objection is specially relevant in the case of a country, such as our own, with a large export trade—that external price stability is more important than internal price stability. As Britain lives by buying and selling in foreign markets, it is imperative that her medium of exchange should be as stable as possible.

Sterling's Climb towards the Parity.—In spite of the theoretical attractions of a managed currency and in spite of the anticipated danger of our being bound to the United States by chains of gold, the Government was induced by the weight of financial opinion in this country to persist in its declared policy of restoring sterling to parity with the dollar, and of effecting a speedy return to the essentials of the pre-war currency system.

From the record low level of $\$3\cdot20\frac{1}{2}$ reached in February, 1920, the New York rate slowly recovered during the succeeding three years, until in February, 1923, it maintained an average level of approximately $\$4\cdot70$. The persistent improvement was due to a number of causes.

Possibly the most important factor was the greatly enhanced credit of this country which resulted from her persistent policy of reducing expenditure and balancing her budget, from her epoch-making arrangements to fund the American debt, and from the growing faith in her financial and economic position engendered by the improvement in her foreign trade and by her progress in re-establishing her industry and commerce. Secondly, the fall in prices in this country which succeeded the great boom of 1920 contrasted with the tendency of prices in the United States either to decline more slowly or at certain periods even to rise. In the third place, the demand in this country for dollars was considerably lessened in consequence of our greatly diminished imports from the States, while, on the other hand, supplies of dollars in the exchange market were increased as a result of the large loans made by the States to Norway, Holland, Chile, Brazil, the Argentine and other countries.

From February, 1923, until July, 1924, however, a reaction set in, and the value of sterling in terms of dollars gradually declined until at the latter date all the headway made in the preceding twelve months had been lost. The change was attributable chiefly to political and financial uncertainty. Both in this country and abroad there existed widespread fears of confiscatory measures by the Labour Government, then for the first time in office in this country, while there was also prevalent much uncertainty concerning our future monetary policy, persistent rumours of the proposed adoption of active inflationary measures gaining considerable credence.

In consequence of such anxieties, the exchange was depressed by the large foreign sales of sterling securities and the increased demand for dollar investments, considerable balances being transferred from this country to the New York market.

Britain's Return to Gold.—The later months of 1924 witnessed a further complete change. The fears referred to in the previous paragraph proved to be unfounded, and, in spite of the usual autumnal demand for dollars, the sterling rate rapidly improved until in the early months of 1925 it had so nearly reached the parity that the return of this country to gold was at last an accomplished fact. Many factors operated to bring about this happy event, but the chief causes are indicated in the following paragraphs.

In the first place, the world and particularly America could not fail to be impressed by the financial strength of this country as evidenced by the continual reduction made in the National Debt, the balancing of our budget, the reduction in our State expenditure and the deflation of our currency. The punctual payments on account of our American Debt in accordance with the agreement made by Mr. Stanley Baldwin in 1923 also increased world confidence in British financial policy and added to London's prestige as an international monetary centre. Consequently, our credit rapidly improved when the fear of inflation was once past, and when the replacement of the Labour Government by a strong Conservative administration promised a more settled policy for some years at least.

Secondly, there was a revival of world confidence—and especially of American confidence—in European affairs, due to the serious efforts of the principal Continental nations to stabilise their currencies and to re-establish their finances. One immediate result of this was that American money began to pour into Europe. Large loans were granted in the States to various European countries, while considerable quantities of gold were shipped to the Continent to establish satisfactory reserves for the reconstructed currencies. This demand for loans from U.S.A. was accentuated in consequence of the refusal of the London Money Market (working in close co-operation with the Treasury and the Bank of England) to grant loans during 1924 other than to the British Dominions and Colonies and for reconstruction purposes in Europe. At the same time, the New York market was only too pleased to get rid of part of its steadily accumulating resources by granting loans and credits to the Continental countries. Consequently, the whole world was a seller of dollars and a buyer of sterling, for a large proportion of the financial operations resulting from the establishment of these credits naturally passed through London, by virtue of her position as the principal clearing-house for European finance.

Thirdly, a considerable variation in the relation of wholesale

prices in this country and in America exerted an appreciable influence on the rates of exchange. This was noticeable particularly at the end of 1924 and in the early months of 1925, when wholesale prices in the States tended to rise in consequence of the great expansion of bank credit in that country and of the decline in the world value of gold, contrasted with the fair steadiness of such prices in this country. It may be explained that the rise in American prices indicates a fall in the value of dollars in terms of commodities, but as the value of sterling in terms of commodities remained more or less constant, sterling necessarily appreciated in terms of dollars, in accordance with the Purchasing Power Parity Theory.

In the fourth place, the outlook for British trade showed some improvement towards the end of 1924, for the efforts of Continental countries to re-establish their economic position tended to widen the market for our products. Furthermore, the fact that the large War accumulations of manufactured stocks and raw materials had by now been absorbed was also not without its influence on the industrial and commercial situation.

Finally, must be mentioned the factor which was, without doubt, of the greatest importance in its immediate effect upon the position, and that was the widening of the margin between New York and London rates of interest through the raising of market rates in this country (the medium being the Bank of England rate of discount) and the consequent attraction to London of large liquid balances for short-term investment.

During 1924 the Bank rate had been maintained at the comparatively high level of 4 %, but on March 5, 1925, it was still further raised to 5 %, market rates being induced to follow by virtue of an understanding between the Bank of England and the great London banks. The greater attraction of London for short-term investments was still further accentuated by the prevalence of lower rates of interest in New York, and consequently very considerable transfers of American capital were made to this country. The increased demand for sterling in the latter months of 1924 had already been sufficiently great to counteract the usual autumnal demand for dollars and to force up the New York-London rate, but when the Bank of England took the final step of raising its rate to 5 %, it became clear to the world that the determined attempt which was being made to restore sterling to its parity with the dollar was destined to be completely successful.

The actual announcement of Britain's re-establishment of the gold

bullion standard was made by Mr. Winston Churchill in his Budget speech of March, 1925, and legal effect was given to the arrangements by the Gold Standard Act, 1925. Three years later, the recommendations of the Cunliffe Committee concerning the currency note issue were embodied in the Currency and Bank Notes Act, 1928, the chief provisions of which are stated in Chapter XI.

The return to gold was facilitated by the exceptionally strong measures taken by the British Government to provide support for sterling in New York if it became necessary, and by the widespread desire in America to see the pound permanently on a gold basis. To this end much valuable assistance was rendered by the financial institutions in that country, and particularly by the U.S. Federal Reserve Board.

Before leaving this important subject it should be mentioned that the restoration of the pound to parity with the dollar implied a considerable alleviation of the burden of our debt to the States and of the annual charges thereon. At the same time, it involved payment to us in *gold*, and not in a currency depreciated in terms of gold (as was the case with sterling for a number of years), of the interest on our three thousand millions of capital invested overseas. It has, in fact, been estimated that the net gain resulting from the restoration of the gold standard is in the neighbourhood of £100,000,000 per annum.

Whatever the disadvantages of the gold standard may be—and it is certainly by no means perfect—there is little doubt that Britain's return to gold was an event of paramount importance, marking the end of a period of financial upheaval unparalleled in our history. As Mr. McKenna so well stated, the psychological and moral aspects of the matter were of almost greater significance than the purely economic and financial considerations. The gold standard implies an international measure of value, ensuring an automatic adjustment of prices and of the exchanges, while it inspires that confidence in the future which is so vital to the maintenance of stable business conditions.

The prosperity and greatness of Britain are undoubtedly linked with the gold basis of exchange, internal and external, and London's strength as an international centre is built on her world-wide reputation for immediate payment in gold upon demand. The resumption of the gold standard betokened the return to that parity between sterling and gold which had existed for nearly one hundred years prior to the War. It meant the re-establishment of the fact that the purchasing power

of sterling and the purchasing power of gold are synonymous—a fact which has endowed the British monetary unit and British instruments of credit with a world-wide prestige.

The Exchanges with Australia, New Zealand and South Africa.—

It has been explained in an earlier chapter that the exchange rates between this country and Australia, New Zealand and South Africa represent quotations for the purchase or sale of sterling in one country against delivery or purchase of sterling in another. It is rare, however, that the relative position of the banks over a period is such that remittances to and fro can be effected at the parity. In fact, considerable difficulties have arisen in recent years in consequence of the wide fluctuations in the balance of indebtedness of the Dominions.

For example, in 1919–1920 Australia's balance of *trade* was not less than £42,000,000 in her favour, whereas in the following year she actually had an adverse balance of over £9,000,000, a difference of £51,000,000 in two successive years.

Naturally such violent changes placed an enormous strain on the resources of the few banks responsible for the transfer of funds to and from the Dominions, and in view of the figures quoted it is not surprising to find that the Australian exchange mechanism did, in fact, break down entirely in 1922. In the later months of 1924 also the difficulties were considerable, the premium on remittances to Australia rising to as much as 70s. per cent, and causing much dissatisfaction amongst importers in this country, who were inclined to blame the banks for the prevalence of such high rates. In fact, however, the premium on Australian remittances was attributable to similar causes as had operated previously, the heavy shipments of wheat and wool from the Commonwealth giving rise to a great demand for remittances to that country and thus causing a considerable increase in the London balances of the Australian banks.

The difficulties relative to the Australian exchange after the War were considerably intensified by the heavy and persistent borrowings of the Commonwealth in this country. Thus a great deal of anxiety was felt in 1924 by the fact that in the ten previous years Australia had borrowed no less than £130,000,000 from the London market. Loans of such magnitude necessarily involved a considerable addition to the spending power of a community numbering little more than six million persons, and consequently there was an appreciable increase in the demands made on the resources of the banks. As, however, the banks in Australia could not meet demands upon them for currency or for accommodation against funds to their credit in London, the

exchange problem was greatly accentuated by the very real difficulties resulting from a shortage of currency.

Fortunately full cognisance of the facts was taken by the Government, and many of the difficulties were removed by the passing of the Commonwealth Bank Act, 1924. This placed the sole control of Australian note issues in the hands of the Commonwealth Bank, which was authorised to issue notes against a gold reserve of 25 %, part of which can be kept in the form of funds to its credit in London. By careful manipulation of the balance held to its credit in London, the Bank is able to meet the seasonal demand for currency resulting from the movement of the wool and wheat crops without disorganising the exchange and currency systems, and without imposing an additional burden on the trading community in the form of heavy charges for remittances and discounts. Nevertheless, it is not an easy matter to see how permanent stability of the exchange can be ensured unless steps are taken to limit within the bounds of economic safety Australia's borrowings on the London market.

New Zealand and South Africa have experienced difficulties similar to those discussed in the foregoing paragraphs. In consequence of seasonal movements of crops, demands for currency and exchange tend to arise all at the same time, and there is a resultant scarcity of currency for home use and an accumulation of surplus foreign balances, chiefly sterling, which cannot be used easily or profitably.

At this point, one factor relative to these exchanges may be mentioned which has an important bearing on the difficulties experienced by merchants trading with the Dominions, and that is the absence of forward exchange facilities in the currencies. Thus an English importer of Australian produce has no means of protecting his exchange other than by an immediate purchase of the necessary remittance (whether a T.T. or a bill of exchange) at the prevailing rate, the objection to such a course being that funds are locked up which could be more remuneratively employed as part of an active turnover. If rates are high, there is naturally some disinclination to fix up the contract, and a tendency also to blame the banks for any existing premium on the exchange. It would seem, therefore, that the institution of a forward market in these exchanges would tend to relieve traders of much of their present troubles, while it might also ameliorate some of the difficulties which have hitherto arisen in consequence of the seasonal fluctuations in the trade and exchange of the Dominions.

The Neutral Exchanges.—Under this heading would correctly be comprised the exchanges of all the non-belligerent nations during the

late War, but the term came to be frequently used to refer more particularly to the rates with Switzerland, Holland, Scandinavia and Spain, all of which countries were intimately affected by the conflict which raged around them. The importance of the movements in their exchanges will be appreciated when it is considered to what extent the belligerent States were dependent on these countries for supplies of food and material. So far as our own country is concerned, the causes which led to the unfavourable position of our exchanges generally have already been mentioned. The sterling exchanges with neutral countries had to bear the brunt of vast payments on behalf of the British Empire and its Allies, and there was practically no means of meeting those payments other than raising loans and establishing credits against the British Government's guarantee.

After the close of the War, the exchanges between Britain and the Neutral States gradually improved, and a comparison of the rates quoted at various dates in the tables in Chapter VII will indicate the extent of the leeway which had to be made up.

Holland, Switzerland and Sweden.—During, and for some years after the War, the strength of the guilder, the Swiss franc and the Swedish krona were noteworthy features of the London Foreign Exchange Market. This was only to be expected when most of the other European nations were at war, but after the declaration of peace also these currencies were favourably influenced by a variety of factors.

So far as Holland is concerned, the part played by the guilder in European financial operations—largely owing to the proximity of Holland to Germany—gave that currency and also the Amsterdam Money Market a position of considerable importance, and the demand for guilders in subsequent years to finance large shipments of rubber, sugar and other products from the Far East tended to maintain it at a premium relative to sterling (see also Chapter XIX).

The sterling value of the Swiss franc also held steadily against this country for several years after the War, chiefly owing to the diversion to Switzerland of capital from other countries whose currencies were depreciating, and to the persistent demand for Swiss currency on the part of the large numbers of tourists who sought freedom from their War and post-war cares at the healthful Alpine resorts. In 1926, Switzerland formally receded from the Latin Union, and in 1929 she adopted the gold-exchange standard (see page 459).

The stabilisation of the Swedish krona on a dollar basis necessarily maintained that currency at a premium in terms of sterling so long as

the New York rate was against us. The result of stabilisation in Sweden, according to Professor Cassel,* was "a most violent economic crisis, which annihilated the fortunes of a great many people, exposed the banks to serious difficulties and for a time paralysed the industry of the country." Nevertheless, "Sweden reaped the fruits of its determination and its sacrifice, the economic life of the country started again on the new gold basis, and in the next few years comparatively great prosperity was reached".

Since the re-establishment of the gold standard in Sweden, Switzerland, Holland and our own country, the sterling exchanges with these countries have kept close to the mint parities and are now once again governed chiefly by such normal influences as existed in pre-war days.

Spain, Norway and Denmark.—Our exchanges with Spain, Norway and Denmark, which remained consistently unfavourable during the war-period, thereafter considerably depreciated in terms of sterling. As was only to be expected, these countries experienced a violent reaction after the War and post-war boom, and the disorganisation of their economic structure naturally had its effect on their currency and exchange, while in all cases speculative activity—especially in foreign exchange—proved so detrimental to business conditions that it had to be curbed either by State restriction or by co-operation on the part of the banks.

In the case of the peseta, the fall was still further intensified by the unsatisfactory economic conditions in Spain, and the disturbance of Spanish credit in consequence of frequent political disorders and of the drain on the National Exchequer to meet the cost of the war against Morocco. Speculation in foreign exchange has had a particularly detrimental effect on the value of this currency, and the Government has experienced much difficulty in its attempts to stabilise the exchange. At the time of writing (July, 1929) it is announced that a determined effort is to be made to restore the gold standard on a devalorised peseta, supported by credits arranged with a syndicate of English banks.

Norway also suffered considerably from the effects of speculation in her currency, while the position was not improved by internal labour troubles and banking difficulties. Nevertheless, the active deflationary policy of the Bank of Norway and the improved trade position gradually brought into being conditions of greater stability, ultimately permitting Norway to establish a gold bullion standard.

The Government of Denmark, by undertaking an active policy of deflation and by supporting the exchange with extensive credits in

* *Post-War Monetary Stabilisation*, p. 18.

New York, successfully stabilised the crown on the basis of the U.S. dollar, with the result that, as from 1st January, 1927, Denmark was able to re-establish the gold standard and resume gold exports.

The Exchanges of our European Allies.—Under this heading are included the rates between this country and her Allies in the Great War, viz., France, Belgium, Italy, Rumania, Yugo-Slavia, Portugal and Greece. For convenience, also, the exchange with Russia may be considered under this heading, for the rate was influenced by much the same factors as operated in the other cases.

The economic structure of our European Allies was thoroughly disorganised in consequence of the War, the adverse effects of which upon their currency and upon their finances generally were clearly indicated by the extent to which their exchanges with Britain and the United States became depreciated. The principal reasons for the movement of their exchange rates in favour of this country may be briefly reviewed. We financed them during the War, supplied them with food, raw materials and munitions, made their purchases and settled their debts in other countries. Their exports almost entirely ceased, and as a result of the devastation and destruction of the War, they were able to make slow progress in re-establishing production. Their currencies were enormously inflated by the issue of inconvertible notes. Their monetary units became depreciated, and coins of gold and silver entirely disappeared from circulation. Gold exports were generally prohibited, or even if made, were totally inadequate to correct the exchanges. Finally, their financial position was seriously jeopardised because they made no real effort to balance expenditure and revenue, and thus occasioned world-wide anxiety. As a result, the Allied exchanges with Britain and other gold-standard countries were subject to violent fluctuations, but at the time of writing, only two of our late Allies—Yugo-Slavia and Portugal—have yet to achieve permanent exchange stability.

France.—In common with other belligerents, France financed her War expenditure largely by the issue of inconvertible paper, but, with careful control of the exchanges, the external value of the franc was little affected during the actual War years. After the War, the franc depreciated at a much faster rate. Its value was inevitably affected by the crash of the mark (to which reference is made hereafter), primarily because France constantly relied after the War upon reparation payments from Germany wherewith to balance her finances. She clung to the idea that all the expenses incurred in repairing her devastated regions, and, also, other abnormal expenses resulting from the

War (such as those incurred in her persistent and ruinous occupation of the Ruhr area), would eventually be paid for by Germany. Therefore she distinguished such expenses from the ordinary expenses of Government and met them by borrowing, largely in the form of short-term loans, from the Bank of France. In 1920, an effort was made to reduce this debt and the volume of currency in circulation. For a time the depreciation was checked, but France was not then ready to accept increased taxation, and the Budget remained unbalanced.

The inability of successive Governments to balance National expenditure and revenue, and the unsatisfactory state of the public finances, not only seriously impaired French credit in other countries, but also shook the confidence of the French investor, upon whose remarkable thrift the Government had so long relied for funds. The world consequently witnessed more than one "flight from the franc", i.e., a wholesale withdrawal of balances from France and a widespread disinclination on the part of foreign nations to hold French francs in any shape or form.

International speculation, also, had a great deal to do with the violent fluctuations which characterised the French exchanges with the more stable currencies. In some quarters it is considered that this speculative activity formed part of a campaign against the franc engineered by Germany and pro-German financiers. However true this may be, it is certain that vigorous counter-offensives were undertaken on occasion by the Bank of France in co-operation with the Government and other banks, and with the aid of substantial financial support from London and New York. The effect of these measures was that the depreciation was at times violently checked to the great discomfiture of the speculators, as happened for example in 1924, when the French exchange on London improved from 120 to 80 within the brief period of ten days.

In 1925 and the early part of 1926 the situation was complicated by the maturing of large quantities of *Bons de la Defense Nationale* (the French equivalent of British Treasury bills, largely held by the general public). In the past these had been mostly renewed, but disquieted holders now began to demand cash. Confidence was also shaken by the disclosure that the Bank of France had been persuaded to "fake" its accounts to hide increases in the circulation. Successive ministries failed to deal with the situation, largely because the Budget was unbalanced, as the Socialists, the largest party in the Lower House, insisted on a capital levy which the Upper House refused to accept. In July, 1926, there was a remarkable "flight from the franc". The

sterling quotation rose by 50 francs in five days, reaching 250 on July 20th. By this time M. Poincaré had been made Prime Minister of a coalition Government, and confidence was rapidly restored. Energetic measures were taken to improve the exchange position, and, as a result, the rate fell to 170 by mid-August, remaining at about that figure until October. The Government was then understood to believe that the prevailing exchange rates still undervalued the currency, and action to force up the external value was continued, until the sterling rate reached about 120 by the middle of December.

From March, 1927, until June, 1928, a policy of exchange pegging was pursued, the Bank of France maintaining the value of the franc at about 124 to £1 by buying or selling francs as and when necessary.

The recovery was materially assisted by the fact that speculators who had been "bearing" the franc began to "bull" the currency. This was accentuated by the re-conversion into francs of sums which French people had previously converted for safety's sake into gold currencies. But the permanent revival of confidence rested on the measures taken by the Government. Expenditure was reduced and taxes increased until the Budget was balanced and a surplus was available for the reduction of debt. The floating debt was therefore partly paid off and was further consolidated through the successful issue of new long-term loans. At the same time balances were accumulated by the Bank of France in gold-standard countries, especially in Britain and in the United States.

For a long time the ultimate aim of the Government was uncertain. Business interests wanted stabilisation at the existing value, to which their affairs were being adjusted. On the other hand, the *rentier* class, a very important class indeed in France, wanted the value raised still further, so that the purchasing power of the interest on their bonds would increase.

Very soon after the elections of May, 1928, when he was returned with an undiminished majority, M. Poincaré made his plans known. In June, 1928, an Act was passed providing for the return to the gold standard at the new mint parity of fcs. 124·21 to £1, and since that date the French exchanges have functioned with great success on the basis of a gold bullion standard.

Belgium.—Conditions of a similar kind affected the Belgian franc, which, until 1926, tended to move with its so-called "big brother", chiefly because the fortunes of the two countries, during and since the War, appeared insolubly blended for good and evil. Belgium's finances, however, proved far more healthy than those of France, and

the active measures taken by the Belgian Government to check speculation and to support the exchange, together with the certain, if gradual, improvement in Belgium's general trade position—of an essentially industrial character it should be noted—in 1926 made possible the reorganisation of her currency.

In July, 1926, confidence was increased by the final consolidation of the floating debt, and, in October of that year, Belgium made arrangements to support her exchange by credits at various foreign central banks and by successfully floating a loan of \$100,000,000 in several foreign money markets. Important changes were made in the constitution of the Belgian National Bank (including provision for the maintenance of a gold reserve of 40 %), and for exchange purposes the currency was devalued on the basis of a new unit, the *belga* (equal to five old francs). The existing franc notes were retained for internal use, but the currency was made convertible on demand into gold-standard exchange, and on the 11th February, 1927, a free gold market was re-established.

Italy.—During the War, the lowest value touched by the lira was about 35 per £1, but after the conclusion of peace a variety of troubles handicapped Italy's industry and increased her excess of imports, and the rate fell much more rapidly. During 1920, the quotation was at one time over 100, and, though there was a slight recovery in 1922, the fall recommenced in 1924.

The unsatisfactory position was attributable chiefly to the failure of her harvests and to the resultant considerable excess of imports over exports. During this period, also, the annual totals of remittances to Italy from her emigrants overseas tended to diminish, thus affecting her balance of indebtedness to a remarkable yet appreciable extent, while it was some time before the Fascist administrators were able to win that confidence—either at home or abroad—which was so essential to the successful re-establishment of their country. Italy, however, was determined to restore her economic position, and her Government soon realised the fact that the road to economic recovery lay through the stabilisation of the currency, even if that involved the adoption of a depreciated value.

Between August, 1926, and May, 1927, the lira was subject to a remarkable recovery, rising in that period from 148 to 90 per £1. Thereupon, the Government announced its intention of "pegging" the exchange, and gradually internal prices fell until they were roughly in accordance with the exchange quotation. When the Stabilisation Decree was published, it was found that the rate adopted was 92·46

to £1, which meant a rise in internal prices of 1 to 2 per cent.—a slight stimulus to production to compensate for the previous effects of deflation.

To maintain the value of the lira, credits of \$75,000,000 were raised with a group of no less than fourteen central banks and of \$50,000,000 with an international group of private bankers led by Messrs. J. P. Morgan & Co., of New York. In addition, the Bank of Italy rapidly increased its holdings of foreign gold securities and was thereby able to undertake redemption of its notes into gold or gold exchange at its option.

Russia.—The vast social and political upheaval in Russia not unnaturally left a permanent mark upon her financial organisation. The methods of the revolutionary Governments in repudiating foreign loans and currency issues resulted in a complete collapse of Russian credit in other countries. Trading relations with foreign States consequently became quite impossible, and exchange rates with Russia were practically non-existent for several years.

Later, however, active steps were taken by the Soviet Government to improve the economic position of the country, and in 1924 a new unit of currency—the *tchervonetz* (plural *tchervontzi*)—was introduced, all former currencies having been repudiated. It would appear that the policy of the Soviet will be vigorously continued in the future, but the success of its measures must be extremely problematical until other nations are induced to enter into commercial relations with the Bolshevik republic, and this is unlikely unless some guarantee is given that the rights of foreign nationals will be duly respected.

Poland.—One consequence of the upheaval in Russia was the secession of Poland to form a separate State, which, after a period of excessive inflation, undertook a thorough reorganisation of the currency. This was based on a new unit, the *zloty*, originally made equivalent to the Swiss gold franc and thus having a mint parity of 25 2215 per £1. In consequence of mismanagement, however, further reorganisation became necessary, and the zloty was devalued to the present equivalent of 43·38 zlotys per £1 (see Chapter XIX). The fact that Poland commands a fine industrial region and is apparently determined to make economic headway augurs well for her commercial future.

Greece, Rumania, Yugo-Slavia and Portugal.—The unsatisfactory financial and political conditions in these countries were also reflected in the low values reached by their currencies during the War and post-war years. As is indicated in Chapter XIX, both Greece and Rumania have now drastically devalued their currencies, but the mone-

tary arrangements of Portugal are still in a most unsatisfactory condition.

The new post-war State of Yugo-Slavia based its currency system on a unit known as the *dinar*. Originally, this was made equivalent to the Swiss franc, but it was found impossible to prevent the depreciation of the exchange. In March, 1929, the Cabinet approved the stabilisation of the dinar at the rate of 100 dinars = 9·13 Swiss francs, but up to the time of writing (June, 1929), the proposals have not been carried into legal effect, although the exchange is being maintained around 276 dinars per £1.

The Eastern Exchanges.—*India.*—The course of the Indian exchange during and since the War is dealt with in Chapter XIII, to which the reader is referred. As is there indicated, the sound financial methods adopted by the Indian Government are reflected in the stability which has characterised the exchange for some years, and in the fact that India is in process of permanently stabilising her exchange on the solid foundation of a gold bullion standard.

Japan.—For a considerable period during and after the Great War the favourable position of Japanese trade was reflected in the appreciable premium on the yen in terms of sterling. Since the disastrous earthquake of 1923, however, conditions have inclined in the other direction, and the exchange continues to bear witness to the ruinous nature of the catastrophe, to the consequent great decrease in the export trade and the vast addition to imports, and, in general, to the great difficulties which have had to be faced by the Japanese people during the period of reconstruction. The position nevertheless shows signs of improvement, chiefly because of the energetic action of the Government in restricting speculative activity in the exchange and because of the gradual improvement in the trade situation.

The South American Exchanges.—During the Great War, the exchanges with the principal South American countries were generally much in their favour, largely in consequence of the extent to which Britain and her Allies were compelled to rely upon these countries for supplies of food and raw materials. In more recent years, however, the unsatisfactory financial and political conditions in the South American republics have been reflected in the widespread fluctuations which have characterised their exchange rates and in the considerable depreciation of their currencies in terms of sterling. This applies particularly to Brazil, whose currency and exchange position became so unsatisfactory that, after investigation by the Montagu Commission, it was decided to devalue the currency and institute a new unit, but

legal effect has not yet been given to these changes. On the other hand, the great European demand for the products of the Argentine, Chile and Uruguay tended materially to improve their exchanges. The Argentine, in particular, prospered exceedingly, and was able in 1927 to establish a gold bullion standard on the basis of the pre-war value of her currency. Chile has not been so successful, and was compelled to reorganise her monetary position by devaluating her currency (see page 474).

The Exchanges of the Ex-Enemy Nations.—It is only to be expected that, as the Allied finances and exchanges were so disorganised by the War, the exchanges of our late enemies should have been completely demoralised. Apart from the enormous strain imposed upon the economic resources of Germany, Austria-Hungary, Turkey and Bulgaria, their final defeat by the Allies and the extent of the Allied demands for reparation payments resulted in a complete collapse of their credit in other countries. As in the case of Russia, the unfavourable situation of Germany and Austria-Hungary was still further intensified by internal political disorder, ending in the establishment of a republic in the case of Germany and in the disintegration of the Austro-Hungarian dual monarchy into several independent States. The internal financial and political difficulties naturally affected the exchanges between these countries and other nations, the rates fluctuating in a manner which can scarcely have been dreamt of by the most imaginative operator.

Direct exchange operations with the nations at war with us were naturally suspended throughout the period of hostilities, and the quotation of rates between London and their financial centres was consequently discontinued for a number of years. It was, however, possible to establish indirect rates with such countries through the intermediary of neutral centres such as Amsterdam and Stockholm (see *ante*, p. 159), and in this way we were enabled to judge the extent to which the enemy States also were suffering from the intense strain on their national finances. After the conclusion of peace, direct quotations once again became possible, but chaos is the only fitting word which can be applied to the position to which the exchanges and finances of the ex-enemy countries were eventually reduced by the interminable inflation of their currencies and by the total collapse of their credit at home and abroad.

Austria.—Although the Austrian krone depreciated to remarkably low levels, its collapse was by no means as absolute as was that of the German mark. In fact, largely as a result of the efforts of the League

of Nations, Austria was enabled to make a remarkable recovery, and it was found possible to stabilise her exchange for a considerable period in the neighbourhood of 310,000 kroner per £ (actually 70,000 kroner to 1 gold U.S. dollar). The success of this measure led to the institution in 1925 of a new currency unit—the *schilling*, made equivalent for exchange purposes to 10,000 paper kroner. The new currency is based on gold, and there is reason to hope that fairly stable conditions will continue in the future. A similar reconstruction has taken place in the case of Hungary (see page 466).

Czecho-Slovakia.—The remarkably strong position maintained by the new State of Czecho-Slovakia since its formation offers a distinct contrast to the unsatisfactory conditions existing in the other divisions of the old Austro-Hungarian Empire. To a great extent this is due to the essentially industrial and commercial character of the new State, but it is also attributable in no small degree to the courageous policy adopted by the Government in balancing its Budget and in refusing to water down its currency. After being maintained for a long period within close limits of fixed parities with the gold currencies, the monetary unit was devalued in 1929 to the equivalent of $164 \cdot 25\frac{1}{2}$ per £1.

Germany.—In Germany, as in France, the full effects of inflation were not reflected in the exchange quotation until after the end of the War. The inflation was, however, very considerable. The Government financed its expenditure largely by the issue of Treasury bills, and by September, 1918, it was calculated that 99 per cent. of the Reichsbank's bill holdings consisted of Treasury bills, against which it issued notes.

After the War had ended, the value of the mark fell rapidly, mainly owing to vast increases in the note issue. The dangers of an unregulated note issue were not appreciated, the current view being that, as there was a scarcity of money, due to its low value, the correct procedure was to issue more, which, of course, further reduced its value. Moreover, the Reichsbank was averse from increasing its discount rate, and this remained at 5 per cent. until July, 1922.

An unbalanced Budget contributed to the inflation, although itself largely due to the inflation, for while the value of the currency was falling, the real value of tax receipts inevitably fell below the estimates. So long as the Allies demanded fresh payments of Reparations which could not be met from taxation, it was, in any case, impossible to balance the Budget. Thus the Allied demands for payments in May, 1921, June, 1922, and April, 1923, each terminated periods of relative stability in the value of the mark.

From January until April, 1923, that value had been kept fairly stable by sales of foreign currency coupled with a rationing of foreign exchange purchases. This policy was continued until October, 1923, but without success, as it merely led to the depletion of the Reichsbank's gold holdings. The depreciation was increased by enormous sales of marks by Germans who had lost confidence in the currency, and also by widespread speculation in the leading foreign exchange markets.

Futile attempts were made by legislation to prevent speculation, but none of the remedies touched the causes of the fall, and they therefore proved ineffective. The final collapse was caused by the occupation of the Ruhr area by the French in 1923, in consequence of Germany's failure to meet the reparation payments due in that year.

The result of these factors was that, by the end of 1923, the mark had become utterly valueless, the rate of exchange between London and Berlin being at one period quoted in terms of *billions* of marks to the £. The "flight from the mark" was far more ruinous and certainly far more spectacular than the flight from the franc, and in many quarters it is believed that the collapse was engineered by Germany in order to effect a cancellation of the considerable amount of her currency in the hands of foreign (and particularly Allied) nationals.

After the degeneration of the pre-war mark into a valueless unit, attempts were made with international assistance to establish Germany's finances on an improved footing. The reorganisation of the currency proceeded by two stages. In the first place, the *rentenmark*, an inconvertible note equivalent to one billion paper marks, was issued for internal use. The devaluation of a currency in the ratio of 1,000,000,000,000 to 1 is no doubt the most remarkable case of its kind in history, but the value of the new unit, which was based on the gold dollar, was maintained with considerable success.

In 1924, the establishment of the German Gold Discount Bank, the adoption of the recommendations of the famous Dawes report by the signing of the Agreement of London in August, 1924, and the successful flotation of a large international gold loan, enabled Germany to take the second step of abolishing her old paper mark and the *rentenmark*, and of replacing them by the gold *reichsmark* as the unit of currency. The new unit, which for conversion purposes was made equal to the *rentenmark*, was for some time artificially maintained at par with the United States dollar, and the steadiness which has since characterised the exchange bodes well for the maintenance of stable conditions in the future.

The industrial position has not, however, been so satisfactory as the financial. During the inflation, although business was on an unsound basis, exports were unhealthily stimulated by an *undervalued* currency (i.e., a currency of which the external value was falling faster than the internal). When the mark was stabilised, this influence ceased. Moreover, it was found that during the inflation German industry had become very seriously over-capitalised, not merely in terms of money, but also in terms of productive capacity. The result of this was seen in a great increase in the number of bankruptcies and, also, in the collapse of the Stinnes Trust. Lastly, there was a great shortage of credit, partly due to the fact that there was less unwillingness to hold currency and therefore the effective supply of money was lessened, and partly due to the cessation of inflation itself. This shortage the Reichsbank met by an attempt to *ration* credit. A limit was fixed to the total amount of credit granted and efforts were made to ensure that the needs of industrialists and genuine traders were met and that credit was not extended to speculation. The scheme had a very fair success, and did assist in the rehabilitation of German industry.

During 1927-1928 it became apparent to all thinking people that some modification of the Dawes Plan was essential. Germany was experiencing increasing difficulty in effecting the transfer of goods and money which she was required to make, and it was obvious that her finances could never be safely re-established if she continued to meet her obligations by constantly borrowing abroad more than her economic structure could properly and conveniently afford.

Early in 1929, a special committee of experts was appointed by the interested countries to examine the position, and as a result of their deliberations the "Young Plan" was formulated, providing for a considerable reduction in the total amount which Germany has to pay and introducing necessary modifications into the arrangements by which those payments are to be effected.

The Bank for International Settlements.—Of these arrangements, the most far reaching provide for the establishment under international control of a Bank for International Settlements, to supersede the Agent General for Reparations established under the Dawes Scheme, and discharge his functions of receiving the reparation payments from Germany and of distributing them among the various creditors on the agreed basis. In addition to these so-called "essential" functions, the Bank is empowered to conduct banking and commercial operations, and to act as banker for the world's central banks, very much in the

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same way as the Bank of England acts as banker for the other banks in this country.

This last function is likely to be of immense significance. It will ensure that close co-operation between the world's central banks which we have seen to be of the utmost importance for the maintenance of the gold standard and a stable price level throughout the world. By replacing part of their gold holdings with deposits at the new bank, the central banks will be able to effect a vast economy in the world demand for gold, and, at the same time, to reduce to a minimum international movements of specie.

It is anticipated that the new bank will thus become a kind of international clearing house wherein the ultimate balance of indebtedness between the various nations will be settled without the movement of gold by the same convenient process of set-off and cancellation as that which is applied in our own country by the Bank of England in its capacity of central clearing bank. In this way, the balancing of international accounts necessary to the maintenance of exchange equilibrium may become a matter of the greatest ease and simplicity. Instead of, as at present, inducing the inflow or outflow of short-term balances, and, if necessary, establishing credits and raising loans in foreign centres, the central banks may equilibrate debits and credits by borrowing and lending through the international bank, so that the movement of funds will resolve itself into a mere transfer entry in the books of the new bank.

Undoubtedly, the establishment of the bank is a bold and wise conception, pregnant with possibilities for the future. And of all countries, Britain is likely to benefit immeasurably, since her exchanges will doubtless be rid of the disturbances and periodical shocks now caused by the vast movement of funds between Europe and America.

CHAPTER XV

THE ELIMINATION OF RISKS CONNECTED WITH FOREIGN TRADE AND EXCHANGE

THE Great War taught the world many lessons which had previously been but slightly understood. It taught the folly of attempting to settle international disputes by resort to arms. It demonstrated in no uncertain fashion the utter uselessness of wasting millions of lives and still more millions of money in a conflict which leaves the victor little better off than the vanquished. We may hope that it has shown mankind the way to peace and greater understanding. And we cannot doubt that it has made traders and merchants throughout the world more than ever determined to see no more of war-time disruption and post-war uncertainty. The recent upheaval brought home to them the fact that the corner-stones of international trade are mutual confidence and goodwill, and that, once these are destroyed, the whole fabric of world-business totters to a ruin which even a generation of hard work can scarcely restore.

Even at the best of times, international business bristles with difficulties. It involves agreement between two persons who have not only to overcome the factor of distance and the uncertainty which distance entails, but also the complications which necessarily arise from differences in race, language, law and business morality. Moreover, distance usually means time, and the time element is vital where credit is concerned. A business deal may seem sound enough when it is first effected and for some months afterwards. But when fulfilment is called for and settlement is required, conditions may have changed to such an extent as to make completion impossible. Political unrest, a collapse of credit, the outbreak of war, the failure of a harvest, or disordered exchanges are all matters within the bounds of possibility which may make a contract quite incapable of performance, however good the intentions of the parties. And finally, there are the risks of physical misadventure to the goods concerned which, particularly in the case of overseas business, may arise in a hundred different ways.

Small wonder, then, that traders in all countries have in recent

years shown themselves increasingly disposed to take advantage of any facilities which will foster international business and relieve foreign trade and exchange of some of the risk with which it is naturally invested. These risks fall into three groups: (a) those inseparable from the process of exchanging one currency for another; (b) those inseparable from all trade, i.e., that goods paid for will not be delivered, and that goods delivered will not be paid for, owing to the failure of the credit of the other party to the transaction, or for any other unforeseen reason; (c) the risks of loss, delay, or damage to goods in process of transit between one country and another.

THE ELIMINATION OF EXCHANGE RISKS

The most general risk attending foreign trade arises from the fact that an exchange of goods between any two countries involves the translation of the currency of one country into that of the other. The exporter in this country sells his goods and calculates his profit on the basis of payment in sterling, whereas the importer in, say, Holland or India, works out the cost of his goods and fixes his selling price on the basis of his own currency, florin or rupee, as the case may be.

Clearly, the risk is not very considerable between two currencies which are properly functioning on a gold standard, for the extreme variation which can take place in the exchange rates is represented by the margin between the export and import specie points, and, in many cases, the contract price fixed between importer and exporter may adequately provide for any such movement. But, in other cases, the margin of possible profit may be so fine that some means must be found of safeguarding the parties against the likelihood of exchange loss, and such a safeguard is, of course, doubly necessary when the value of one currency in terms of the other is an uncertain quantity, as when one or both are depreciated through the issue of inconvertible paper, or when the two currencies concerned are based on different metallic standards, as, for example, silver and gold. In any of these cases the rate of exchange may fluctuate so markedly between the date of the purchase and the date of payment as to involve one of the parties in considerable loss, unless steps have been taken to eliminate the risk.

It is fortunate for the trading community that bankers throughout the world have applied themselves to the provision of facilities whereby the risks of exchange loss may be entirely eliminated, with little or no cost to the parties concerned.

The Standpoint of the Exporter from this Country.—If, for clearness, we confine our attention at the outset to the standpoint of an exporter from this country, we find that he may adopt one of three possible methods of safeguarding himself against exchange loss:

- (a) If he has arranged to sell and be paid for his goods *in sterling*, he will draw a bill for the sterling amount on the foreign importer and, as is usual, enface the bill with an exchange clause fixing the rate at which it is to be paid to the collecting banker.
- (b) He may agree to accept payment in foreign currency, in which case he can arrange with his banker, at the time he quotes for the goods, the rate of exchange at which the bank will buy the foreign currency *forward*; i.e., at the time he contracts to supply the goods he arranges the rate at which he will sell the foreign currency when it is delivered to him by the importer abroad.
- (c) *In certain special circumstances*, he may obviate exchange loss by having any foreign currency due to him credited to a Foreign Currency Account opened by the Foreign Branch of the bank at his request and in his name.

Exchange Clauses.—The object and effect of various types of exchange clauses have been briefly explained in Chapter V. The only point which requires to be emphasised is that foreign importers will not, at the present time, always pay a bill in accordance with an exchange clause unless they have previously contracted to do so. In pre-war days, there was rarely, if ever, any question about the matter. The English exporter merely drew his bill, embodied an exchange clause recommended by his banker, and trusted to the fact that the foreign drawee would not object. Nowadays, however, the position is not quite so easy. On occasion, foreign drawees have refused to pay at the required rate when they have found that the exchange clause reacts to their disadvantage by compelling them to accept from the collecting banker a higher exchange rate than they could obtain elsewhere, a position which arises, more especially, when the exchange rate concerned is subject to marked fluctuation. For this reason, it is desirable for the exporter who proposes to draw in sterling to make precise arrangements as to the method of payment at the time he effects the contract of sale.

The use of the exchange clause on a sterling bill does not, of course, afford any protection to the foreign *importer* against movements in

the prevailing rate. Subject to the considerations above mentioned, his payment must be effected in accordance with the provisions of the bill at the time it is presented for payment, and, unless he has taken steps to safeguard himself by a forward operation in the manner described below, he must, of course, bear any loss which may arise if the exchange has moved against him between the date on which his purchase was made and the date of payment.

Forward Contracts.—By far the greater proportion of exchange risks which arise from the necessity of having to receive or to pay money on a specified future date are eliminated by resort to the forward exchange facilities now provided by banks in all the leading countries. As was explained in Chapter IX, the unprecedented fluctuations in the exchanges during and after the Great War gave a great impetus to the development of the forward market, and enlightened traders of all nations as to the exceptional advantages afforded by the machinery of that market. To the extent that he could draw in sterling and utilise an exchange clause, the British exporter was protected against fluctuations in the sterling value of a foreign currency; but that method afforded no safeguard to the importer abroad. By the system of forward exchange, however, the positions of both home *and* foreign trader, whether exporter *or* importer, can be equally protected, as will be clear after consideration of a few practical examples.

Forward Exchange and the Importer.—Assume that when the sterling exchange rate on Paris stands at Fcs. 125 per £1, a London merchant orders from a Paris manufacturer a parcel of goods valued at Fcs. 125,000, which he at once sells in London for £1,040, and thus makes an apparent profit of £40 as a result of the deal. The goods are made and delivered, and, in accordance with the standing arrangement for a month's credit between himself and his correspondent in Paris, the London merchant proceeds to effect payment for the goods at the expiration of one month from the date of the order. On approaching his banker, however, the merchant finds that the Paris rate has moved to Fcs. 120 per £1, and, in consequence, he has to pay £1,042 for his remittance of Fcs. 125,000. Thus, what was an apparent profit at the date of the purchase and sale turns out, in fact, to be an actual loss of £2.

To avoid such a risk, therefore, the London merchant resorts to a forward deal with his banker. When he gives the order for the goods, he arranges to buy from his banker, one month forward, Fcs. 125,000 at the existing forward rate, say, Fcs. 124·75 per £1. At the time of

settlement, the merchant pays the banker £1,002, and, irrespective of what the rate then happens to be, receives in return a sight draft or cheque on Paris for Fcs. 125,000, which he remits to the French manufacturer. In this way, the London merchant safeguards his profit on the purchase and sale of the goods, and also relieves himself of all anxiety concerning fluctuations in the exchange between London and Paris.

By way of further illustration we may suppose that a merchant in Manchester has purchased \$20,000 worth of cotton from a merchant in U.S.A., and has arranged to make the payment in New York three months after the date of the order, by which time the cotton will have arrived in Manchester. The Manchester merchant wishes to arrange the sale of the cotton before it actually arrives, and to do this he must quote a firm price to the buyers. As, however, the dollar exchange may have moved very considerably by the expiration of three months, he will have some difficulty in determining *now* how much sterling he will be called upon to pay in three months in order to settle his debt of \$20,000 in New York. If, for example, the exchange when he orders the goods stands at 4·89, but, by the time he is called upon to pay, has fallen to 4·84, the fall in the rate would make a difference of about £42 in the sterling equivalent of the amount due to his creditor. Naturally, this is a loss which a merchant could not generally stand on a contract of such a size. To obviate this he makes a forward contract with his banker, on the day that he orders the goods, whereupon the latter agrees to deliver \$20,000 to the New York exporter in three months' time, and quotes an "all in" rate on the spot for arranging the transaction. The merchant knows exactly how much sterling he will be called upon to pay, his foreign creditor will receive \$20,000 in due course, and it remains for the banker to cover his forward sales in one of several ways which are open to him.

In these examples the exchange movements are intentionally exaggerated, but they will serve to explain that, in the absence of some such arrangement, an importer who orders goods on the basis of payment in foreign currency can never be certain how much he will be called upon to pay when the time of settlement arrives. If he orders on the basis of an exchange rate ruling to-day, he may find that when he comes to pay in two or three months' time the rate of exchange has moved against him, and the sterling cost of his purchase has so increased as to wipe out part or all of the anticipated profit. But having arranged with the banker that he shall be supplied with the requisite currency at a fixed price, he is enabled to fix up his

contracts with the confidence that he will not be called upon to pay more than that rate, whatever the state of the exchanges may be when the time comes for payment. He settles at once the sterling cost of goods which he is purchasing abroad, and can proceed, without risk, to fix his selling price to purchasers here. If he is a factor, he can fix his selling price to the wholesale houses; if he is a wholesaler, he can fix the price at which he will sell to the retail dealers. He thus assures himself a reasonable profit and avoids the possibility of making either unexpected profits or disastrous losses through unforeseen movements in the rates of exchange.

Forward Exchange and the Exporter.—Forward operations are of just as much benefit to the exporter. Let us illustrate this side of the question by taking the case of a South Wales coal factor who has accepted a contract to supply a given quantity of coal to a European country whose currency is subject to marked fluctuations, as, for example, Spain, at the time of writing. The contract may be for a fixed quantity to be delivered in one shipment on a certain future date, or it may be for periodical supplies throughout a given period, as, for example, so many tons per month for six months. In any case, it is quite likely that the contract is fixed up before the coal is actually brought to the surface, yet the price per ton must, of course, be agreed upon at the time of the bargain. If, as is most usually the case nowadays, the arrangement is that the coal shall be paid for in the currency of the importer, then the exporting factor can safeguard himself from loss occasioned by future movements in the value of the peseta only by arranging at once with his banker the rate at which the latter will convert the anticipated future payments into sterling. If only one shipment is involved, the bank will arrange to purchase the payment therefor at an agreed rate. If payments for successive shipments are to be made from time to time by the Spanish importer, then the bank will arrange to purchase the various amounts of pesetas, either at differing rates or at one rate applicable to all deliveries of pesetas by the factor during a given period, e g., the following six months.

By an arrangement of this kind, the exporter is enabled to fix at once the sterling equivalent of the peseta payments to be made to him on account of the coal exported, and can proceed to purchase the required quantities of coal from one or other of the colliery companies on the best possible terms. When the pesetas are received, whether in the form of bankers' drafts, M.T. or T.T. from Spain, they are paid over by the factor to his bank, and his account is credited at once with the sterling equivalent at the agreed rate.

It is possible, of course, that a transaction of this type may be arranged on the basis of settlement in sterling, as, for example, by the exporter's draft in sterling either direct on the importer or on a bank under a letter of credit, or by the importer's remittance of a sterling draft on a London bank. In such circumstances, the coal factor would be placed in practically the same position as if he had effected a sale to someone in this country, and it would devolve upon the Spanish importer to safeguard himself against exchange loss by purchasing forward the requisite amount of sterling.

Again, a British mercantile house exporting goods on consignment may wish to convert the net proceeds into sterling from time to time, and, in order to avoid loss from movements in the rates of exchange, may resort to forward sales of the anticipated amounts in the foreign currency. Suppose that a London firm exports goods on quarterly consignment to an agent in Chile and that the approximate net receipts from the sale of the goods total about 10,000 Chilean dollars every three months. As soon as the goods are exported, the London firm arranges a forward sale of the anticipated proceeds, \$10,000. At the expiration of the period fixed, the dollars are handed by the agent to the banker's correspondent in the foreign centre and the sterling equivalent is paid over to the firm in London.

Other Applications of Forward Exchange.—Apart from its application to ordinary trade operations of the kind here explained, forward exchange is of the greatest advantage in other directions. The British and other Governments have now to make heavy purchases of dollars from time to time in order to make payments on account of war debt and interest in New York. With the object of avoiding the dislocation of the exchanges which would result from heavy purchases at one time, the requisite amount of dollars are purchased and accumulated more or less continuously, "outright" forward purchases being frequently resorted to according to the current view taken by the Treasury officials of the probable future course of the exchanges. And, apart from being used in this way to enable Governments to meet their existing indebtedness, the system of forward exchange is utilised in the manner already explained, to raise loans for considerable amounts in foreign centres.

Forward Deals are Definite Contracts.—Whilst a forward deal may give one party an option as to *the date* of delivery or acceptance of the currency concerned, it is never an option in the sense that it may or may not be ultimately completed. It is a definite contract between two parties—the one undertaking to pay sterling and to accept cur-

rency at an agreed rate at some determinable future time, or within a given period, and the other party agreeing to pay over the currency and to accept the equivalent amount of sterling. If either party fails to carry out his obligation, he is liable for any loss which may fall on the other party in consequence of the breaking of the contract.

As a rule, no money passes between the parties to a forward transaction until the foreign currency is delivered or received by the bank on the maturity date of the contract. But, in undertaking forward business for his customers, the banker must necessarily be guided by the credit and standing of the other party to the transaction, otherwise he may be seriously involved in loss by the failure on the part of his customer to accept or to take up the currency on the maturity date in accordance with the arrangements. For this reason, properly completed contract forms are signed by the customers, and, in addition, a sterling deposit may be demanded in certain cases as security to cover the risk involved, especially when the exchange concerned is subject to marked fluctuations. The amount of the sterling deposit required will usually be slightly more than the sterling equivalent of the original "risk", or difference between the contract rate and the current rate of exchange, and the customer agrees to increase the security should the margin widen, so as to maintain a clear 10-20 % of the total sterling amount of the transaction.

GENERAL CONTRACT FORM FOR FORWARD PURCHASES BY A CUSTOMER

TO THE LOMBARD BANK, LTD.

DEAR SIRS,

We agree that orders which we have given you, or may hereafter give you, from time to time, for the purchase of Foreign Currency, shall be subject to the following conditions:—

- (1) We will accept delivery of such Currency in accordance with the terms of our contract and undertake to provide you with the necessary funds in sterling, and if for any reason we fail to do so we authorise you to sell such Currency in the open market, and we undertake to reimburse you in sterling for any loss you may suffer in connection therewith.
- (2) If at any time before we accept delivery of such Currency the value of the Currency shall have depreciated as shown by the quotation in the *London Times Newspaper*, We will pay you on demand such sum of money as will cover such depreciation, provided that in the event of our completing the contract such sum of money shall be applied in part payment for the Currency at the original contract price.
- (3) We authorise you to debit our Account with all payments you may make from time to time in connection with any such contract.
- (4) Should we instruct you to remit any such Currency abroad we agree that it shall be remitted at our risk, and if held on our behalf by your Agents abroad it shall be so held at our entire risk and responsibility.

Yours faithfully,

James Brown & Co.

Date.....

GENERAL CONTRACT FORM FOR FORWARD SALES BY A
CUSTOMER

TO THE LOMBARD BANK, LTD.

DEAR SIRs,

We agree that sales of Foreign Currency which we have made to you, or may from time to time make to you, shall be subject to the following conditions:—

- (1) We will make delivery of such Currency in accordance with the terms of our contract, and if for any reason we fail to do so you are authorised to buy such Currency in the open market and we will reimburse you in sterling in respect of any loss you may suffer in connection therewith, and you may debit our account with such loss.
- (2) If at any time before we make delivery of such Currency the value of the Currency shall have appreciated as shown by the quotation in the London *Times* Newspaper, we will pay you on demand as security such a sum of money as will cover such an appreciation, but such sum shall be returned to us on our completing the contract at the agreed rate in due course.

Yours faithfully,

James Brown & Sons.

Date

The above Forward Contract Forms cover a series of transactions between customer and bank. Less comprehensive forms are used for isolated transactions.

Forward exchange facilities are obviously of the utmost importance to the business community, as they tend to remove that uncertainty which makes trade all but impossible. It is therefore surprising to find that merchants do not avail themselves of these facilities to the extent which might be expected, although they are provided by bankers at remarkably low rates. One explanation is that business men in this country are even yet but slightly acquainted with the mechanism of the exchanges, although most of them would unhesitatingly attribute the stagnation in trade in recent years to the uncertainty which has characterised the exchanges of the world. It is thus possible that the nature of forward dealing is not as widely understood as it might be, and that, consequently, its advantages are not fully appreciated, or that it is avoided on account of its supposed element of speculation. Nevertheless, it cannot be doubted that British merchants would do well to make themselves better acquainted with arrangements which enable much of the risk of international exchange to be eliminated.

Foreign Currency Accounts.—The method of eliminating exchange risk by the opening of a Foreign Currency Account is of comparatively restricted application, but is nevertheless of the greatest utility in those cases where it can be applied with advantage. This may happen, for example, where a merchant has regularly to make and to receive payments in a foreign currency whose external value is subject

to marked fluctuations, in which case losses on conversion into sterling may be avoided by maintaining a foreign currency account for the express purpose of receiving the credits and making the necessary payments.

The opening of a foreign currency account may also eliminate loss in those cases where money which is being received abroad in foreign currency can be more profitably utilised in the foreign centre than at home, as has been quite often the case recently with dollar funds accumulated in New York, which could be used far more profitably in that centre than if they were converted into sterling for use in London.

THE ELIMINATION OF CREDIT RISKS

The fact that a merchant may free himself from the risk of loss through movements in the rates of exchange by taking advantage of the facilities described in the foregoing paragraphs does not, of course, prevent him from incurring loss through the failure of a foreign importer to pay what is due, or through the failure of a foreign exporter to deliver goods which have been paid for. Even these difficulties, however, are to a very large extent overcome by the use of Letters of Credit, whereby the reputation of well-known banks throughout the world is made available to reinforce the credit of buyers and sellers, between whom business would otherwise be impossible or would be conducted under conditions of difficulty and restraint. And apart from thus providing credit facilities with benefit both to importer and exporter, the banks also undertake a variety of allied functions which ensure, on the one hand, that goods can be claimed only if payment therefor is duly made, and, on the other hand, that an importer obtains those goods, and only those goods, for which he has properly paid. In addition, they provide credit facilities for people, other than traders, who wish to purchase from other countries, not material goods, but the immaterial benefits afforded to them as travellers in the form of scenery and change, new surroundings and new interests, and a wider knowledge of the world and its peoples.

Accepting Houses.—Closely associated with the banks in the provision of acceptance facilities and the issue of letters of credit are the institutions known as Accepting Houses, which have long been a peculiar feature of the London Discount Market, but are now to be found in other centres. The London accepting houses were originally merchant firms of high repute, whose names were so well known and honoured in important trading centres throughout the world that they were called upon to lend their signatures on bills drawn by traders

of lower standing. Gradually, these wealthy merchants found such financial operations very profitable, and, in time, they abandoned their purely trading businesses and assumed the rôle of *merchant bankers*, from whose ranks has sprung the modern accepting house, typified by such well-known firms as Rothschilds, Barings, Schroeders, Brown-Shipley, Hambros and Lazards.

The function of the accepting house is to guarantee with its signature the fulfilment of contracts by bills of exchange; more particularly, by giving its acceptance, in return for a commission, on bills drawn by the seller of goods. The accepting houses make it their business to know the financial standing of traders throughout the world, and they are able to function successfully by maintaining a careful watch on the general course of business and monetary conditions surrounding their operations. They are materially assisted in this regard by the experience and knowledge gained by those of their partners who function on the Boards of the joint-stock banks, and on the Court of Directors of the Bank of England.

To the activities of the accepting houses is due, in no small measure, the high prestige of London as an international financial centre, and the fact that foreign countries regularly settle for goods sold and services rendered to one another through the intermediary of what is known as a *London Reimbursement*; i.e., acceptance and finance facilities arranged with a London bank or accepting house.*

Probably the chief factor militating against the success of the efforts made by New York during the War to supplant London as the world's financial centre was her lack of a well-organised acceptance market. That this position is realised may be deduced from the fact that New York has of recent years been making considerable efforts to develop such a market, and there is now ample evidence that she has succeeded in attracting to herself much of the acceptance business which, in pre-war days, flowed naturally to London.

Letters of Credit.—In general terms, a letter of credit is a document authorising the person to whom it is addressed to issue or negotiate bills drawn on demand, or at a specified term, upon a person named in the credit, the latter undertaking to honour the drafts, when presented, provided they are in good order and otherwise in accordance with the terms of the credit. The credit specifies the period during which it is

* An American economist, after wide investigation, has declared that *ninety* out of every hundred letters of credit employed in world-trade are those issued in sterling by British banks and their connections (see page 64, and "Overseas Commercial Credits," by M. S. Herries, *Journal of the Institute of Bankers*, February, 1925).

to remain in force, and contains a request that particulars of all drafts paid or drawn thereunder shall be indorsed in a space provided, so that it is possible to ascertain clearly, at any time, how much of the original amount of the credit is still outstanding.

A letter of credit is neither negotiable nor transferable, and payment thereunder can be obtained only by the person in whose favour the document is issued, specimen signatures of that person being embodied in the letter of credit for purposes of identification.

Instructions for the issue of a credit are taken from the customer concerned on a special form, the total amount of the credit being at once debited to the customer and credited to a special "Letter of Credit Account," or, if the customer is of sufficient standing, an arrangement being made for the drafts under the credit to be debited to him as and when they are presented for payment.

Letters of credit issued in this country and abroad are variously described according to their terms and the facilities which they place at the disposal of the grantee, but all credits may be placed in two broad classes, viz., those which are *Bank Credits* and those which are not. Strictly speaking, the former comprise only those credits which embody the *undertaking* of the issuing bank to honour certain drawings of the grantee or beneficiary of the credit subject to the fulfilment of certain specified conditions. The essential feature of a *bank credit* is that it involves the substitution of the superior credit of the issuing bank for the relatively inferior credit of the beneficiary, and any type of credit which does not embody this undertaking, even though it may be issued by or through a bank, is best not described as a *bank credit*.

Authorities to Negotiate and Negotiation Credits.—Letters of credit which are not issued through the intermediary of a bank are not, however, of great importance to our present subject. It may merely be observed, in passing, that occasionally the credit and reputation of a concern is so well known that its undertaking to accept and pay bills drawn by its correspondents will be honoured almost anywhere in the world, and, in such circumstances, the concern may itself issue letters of credit without resort to a bank. Such credits are usually described as *authorities to negotiate*, or *authorities to purchase*, or *negotiation credits*, but, nowadays, the facilities afforded by the banks throughout the world are so extensive that their services are frequently requisitioned to make the necessary arrangements for a credit of even this kind.

In such circumstances, the bank will be asked to request its cor-

respondent in a foreign centre to negotiate bills drawn by a specified person on the customer applying for the facility, up to a given amount and subject to the fulfilment of certain conditions. There is, of course, no *undertaking* on the part of the issuing bank to honour the drafts when presented, but the advantage of making the arrangements through a bank is that the *negotiating* bank abroad can rely upon the fact that the *issuing* bank will honour any drafts negotiated under the credit prior to the receipt by the negotiating bank of notice of its cancellation. On the other hand, such a request to negotiate bills is in no sense an *order* or *instruction* to the negotiating bank, and it is conceivable that the latter institution, having reason to doubt the standing and worth of the accreditée, may either demand security or further instructions from the issuing bank, or may even refuse to discount the bills altogether.

Bank Credits.—Letters of credit issued by the banks in this and other countries partake of a great variety of forms. The vast majority of them are used in international trade, and, since at least two countries are always involved, it is sometimes difficult to ensure that a credit is applied exactly as it is intended, because there are marked differences in the practice relative to these credits, not only as between the various countries, but also in individual countries. From time to time efforts are made to achieve some degree of standardisation or uniformity, with the object of reducing the danger of losses and disputes to bankers and traders alike. The International Chamber of Commerce, in particular, has worked actively in this direction, and its regulations for the guidance of bankers in dealing with credits have been adopted nationally by banking associations in several countries.

American banks have also made notable efforts in recent years to achieve greater perfection and standardisation of their credit forms, and nowadays they endeavour to eliminate delay, trouble and disputes by embodying in commercial credits a schedule of provisions covering almost every conceivable point which might arise for decision by the negotiating bank.

All bank credits may be roughly classified into two broad groups: (a) *Non-commercial* credits; and (b) *Commercial* or *Trade* credits.

Non-commercial Bank Credits are those which are issued mainly with the object of enabling customers who intend to travel abroad to obtain funds in a foreign country or countries, as and when required, on the strength of an instrument or authority issued by and under the signature of the issuing bank, the main object being to obviate

the necessity of carrying unnecessarily large sums of money from place to place. They include Travellers' Letters of Credit, Travellers' Cheques, Circular Cheques and Circular Notes.

Commercial or Trade Bank Credits are those which are issued mainly for the purpose of facilitating the transfer of goods, by virtue of the fact that they reinforce the credit of relatively unknown merchants and traders by the credit of a bank of known repute. All such credits may possess certain attributes, shortly to be explained, which enable them to be described as (a) *Confirmed or Unconfirmed*; (b) *Irrevocable or Revocable*; (c) *Sight or Acceptance*; (d) *Fixed or Revolving (or Running)*; (e) *Clean (or Blank) or Documentary*.

It is impossible within the limits of space at our disposal to examine in detail the various types of credit here referred to, but it is proposed briefly to review their main characteristics.

Benefits of Bank Credits.—By taking advantage of the facilities afforded by banks in the issue of credits, shippers, merchants and manufacturers can reimburse themselves promptly for shipments of goods, the production of which has probably involved a considerable outlay. They are relieved of the necessity of granting an extended, personal credit which might cause them financial embarrassment, while they are afforded a speedy turnover of capital, and are so enabled to facilitate and cheapen production. On the other hand, importers are relieved of the necessity of having to pay cash before their orders are executed, and are consequently saved the disadvantage of being out of their funds during the time taken to produce, transfer, work up and sell the goods ordered by them from abroad. Frequently, importers who rely on bank credits are able to realise their goods long before the maturity of the relative drafts. The fact that a bank of established reputation is willing to open a credit in an importer's favour is in itself a commendation, while, in the case of a documentary credit, the importer has the satisfaction of knowing that the documents relating to his goods have been carefully examined by the bank or banks concerned. He is assured that they are *primâ facie* in order before he pays over the invoice value, and, when he receives the goods, he may reasonably expect to find that they conform to his order and instructions to the exporter.

In brief, a bank credit affords essential protection with a minimum of trouble, delay and expense to both parties, and, at the same time, permits them to utilise their capital in their respective businesses to the greatest profit.

NON-COMMERCIAL BANK CREDITS.

Travellers' Letters of Credit.—This type of credit takes the form of a letter addressed by the issuing bank to its agents or correspondents, in which the latter are requested to encash the holder's cheques or drafts on the issuing bank up to a specified amount, the issuing bank undertaking to honour the instruments on presentment in due course. As a rule, these credits are issued only to customers of the issuing bank, or to parties who are satisfactorily introduced, while the deposit of the full amount involved is required, unless satisfactory security is available, or unless the customer's standing and account are such as to warrant the banker's dispensing with any such safeguards.

Limited or Special Travellers' Letters of Credit are available only at a *specified* agency, or at specified agencies, of the issuing bank, and, in such cases, the agents concerned are advised of the issue of the credit and are furnished with a specimen of the holder's signature. This appears also on the letter of credit itself, with the object of enabling the paying agent to compare it with the signature in his possession before actually making a payment.

Occasionally Travellers' Letters of Credit fall within the category of *Circular or General or World-wide Letters of Credit*, in which case they usually bear translations of the text in the principal Continental languages, and are available at *all* foreign branches or agencies of the issuing bank, a list of which is handed to the customer in the form of a general *Letter of Indication*. This bears the signature of the holder (signed in the issuing banker's presence) for purposes of comparison, and contains a request, signed by authorised officials of the issuing bank, that funds up to a specified limit shall be placed at the disposal of the beneficiary, against his cheques or drafts on the issuing bank, drawn within a given period, usually not longer than six months. The object of the letter of indication is, of course, to obviate the necessity of advising each correspondent with whom the credit is available, but it is essential that it should be kept apart from the letter of credit otherwise they may be misused in the event of loss of both together. For the same reason, these documents are always sent separately if it is necessary for them to be forwarded by post.

Travellers' letters of credit may be issued in sterling or in foreign currency, according to the wishes of the customer, but, as a rule, those issued in this country are available in *sterling* cheques or drafts. In some cases, as where reciprocal *free* agency agreements exist between the banks concerned, no charge will be made by the foreign agent for

providing funds under a sterling traveller's letter of credit, but, more usually, the cashing agent will require a small commission for the service, or he will take his profit in the rate of exchange at which the conversion into foreign currency is effected.

If the credit has been issued in currency, it will prescribe the

WORLD-WIDE CIRCULAR LETTER OF CREDIT

THE LOMBARD BANK LIMITED

No. 1695.

£1000

HEAD OFFICE, BISHOPSGATE,
LONDON, 17th August, 19..

To the Branches and Correspondents of the Bank.

GENTLEMEN,

This Letter of Credit should be presented to you by *Mr. James Brown*, to whom you will please furnish such funds as *he* may require to an amount not exceeding in the aggregate £1000 (say *One thousand Pounds Sterling*) against *his* Sight Drafts upon this Bank, each Draft bearing the clause "Drawn against L/C. No. 1695."

We hereby engage that all such Drafts shall meet due honour if negotiated within a period of *Six* Months from this date.

All payments made under this Credit must be inscribed on the back hereof, and this letter itself should be cancelled and attached to the final Draft exhausting the amount.

The holder's signature will be found on the Letter of Indication with which he has been furnished *and you are requested to satisfy yourselves by a reference thereto* that payment is made to the proper party, the Drafts being signed in your presence.

We are, Gentlemen,

Your obedient Servants,

The Lombard Bank Ltd.

William Andrews,
Secretary.

Henry Robinson,
General Manager.

[On the Back is printed:]

SUMS DRAWN UNDER THE WITHIN CREDIT

Date when paid.	By whom paid	Name of town	Amount paid expressed in words.	Amount in figures		
				£	s.	d.

method by which the cashing bank abroad is to obtain reimbursement. Usually, the bank will be empowered to do so through the central agent of the issuing bank in the country wherein the credit is available, in which case the central agent concerned will be advised of the issue and details of the credit, and furnished with specimen signatures of the holder.

Before making a payment against a credit, the foreign agent carefully examines the document to verify its genuineness and to ascertain its terms, after which he compares the signature of the holder to his cheque or draft (which must be signed in the agent's presence) with the signature on the letter of indication. Moreover, he ensures that each cheque or draft encashed is clearly marked with the number of the letter of credit, for purposes of identification by the issuing banker.

LETTER OF INDICATION AND LIST OF CORRESPONDENTS

THE LOMBARD BANK LIMITED

No. $\frac{W}{W}$ 1797.

LONDON, 17th September, 19..

To the Branches and Correspondents of the Bank named in the following pages.
GENTLEMEN,

This book has been issued to *Mr. James Brown*, whose signature is given below and who holds our Circular Letter of Credit No. 1695.

Please negotiate drafts on us drawn in accordance with the credit, the drafts to be signed by the above in your presence,

Yours faithfully,

For The Lombard Bank Ltd.,

Henry Robinson,

General Manager.

Specimen Signature of
James Brown.

TO THE HOLDER

It is absolutely imperative that the holder should immediately on receipt of this Letter of Indication and Circular Letter of Credit, affix his or her signature to the Letter of Indication below as a protection against forgery should the Letter of Credit fall into improper hands, and the Letter of Indication should always be kept apart from the Letter of Credit.

When no longer required the Letter of Indication should be returned to the Bank.

This List and the relative Circular Letter of Credit are issued and accepted on the condition that should the Circular Letter of Credit be presented for payment together with this List by an unauthorised person, the loss, if any, shall fall exclusively on the person to whom the same are issued. See Notes on following page.

[A List of Agents and Correspondents follows.]

All sums paid out against a traveller's letter of credit are required to be clearly endorsed in a space provided on the back of the instrument, and to be authenticated by the stamp and signature of the paying agent. It is naturally of first importance that no payment should be made until the agent has ascertained that the period of the credit is unexpired and that it is still good for the amount demanded by the holder, otherwise the agent may himself be held liable for any excess. For this reason, any agent who pays over an amount which exhausts the total for which a credit is available should cancel the credit and attach it to the last cheque or draft encashed by him.

In due course the drafts issued by the customer will come forward from the issuing bank's foreign agent for payment and credit. If these are in *sterling*, the amount of each draft as it is received will be placed to the agent's sterling (i.e., *vostro*) account with the London banker. The corresponding debit will go either to the customer's ordinary current account, or to a subsidiary account credited by the bank with the total amount for which the letter of credit was first made available. If the drafts presented are in *foreign currency*, they will be credited to the relative Foreign Agent's Account in the London bank's *nostro* ledgers, and the corresponding debit will go either to the foreign currency account of the customer, if he has one,

TRAVELLER'S CHEQUE

PAYABLE IN ALL COUNTRIES OF THE WORLD

No. 1794

*Payable within Twelve months from
(Date) 20th August, 19*

Drawer's Endorsement

(To be signed in the presence of the Paying Agent)

To THE LOMBARD BANK, LIMITED
LONDON, E.C.2

Pay Self or Order *Signature of Drawer* } James Brown,

Ten pounds *Witness to Signature of Drawer* } William Thompson, Manager

£10

Northtown Branch.

OR THE EQUIVALENT ABROAD AT CURRENT RATES OF EXCHANGE.

or to a subsidiary account in that currency credited with the total amount of the credit on its issue.

Travellers' Cheques.—These are a modern and convenient development of the traveller's letter of credit, consisting of cheques drawn on and bearing the imprint of the issuing bank, for certain round sums, handed to the customer in exchange for cash. They are signed by the customer on receipt in the presence of an official of the issuing bank, and also on encashment abroad in the presence of the paying agent, a comparison of the signatures affording a means of identifying the holder, who may, however, be required to produce his passport as an additional safeguard. Some banks furnish the holder of travellers' cheques with a letter of indication, but the more general rule is to provide the holder only with a list of the foreign branches and

agencies of the issuing bank, particularly as no difficulty is experienced by travellers in cashing these instruments at tourist agencies, hotels and exchange bureaux, since payment thereof is necessarily guaranteed by the issuers.

Some of these instruments bear an indication on their face of the equivalent value in various foreign currencies at which they may be encashed at the agencies of the issuing bank, but, in those cases where the amount in the issuing bank's home currency only is given, the usage is for the cashing bank abroad to pay the holder at its current rate for sight drafts or cheques on the place of issue. On page 392 is a form of traveller's cheque actually issued by one of the "Big Five".

Circular Cheques.—These instruments, which were issued originally by banks in Continental countries, fulfil precisely the same functions as traveller's cheques, but certain distinct differences exist between the two forms.

Circular cheques are issued in blank by banks to their agents or correspondents abroad, so that the latter may fill them in as required and sell them to travellers about to visit the country of the issuing bank. On issue, the cheques are bound like ordinary blank cheques in books of 10, 20 and upwards. They bear the name of the issuing bank and are printed in different colours according to the maximum amount for which they may be drawn. For example, cheques printed in red must not be used for amounts in excess of 1,000 francs, and so on.

When the cheques are sold to customers in exchange for cash, the selling bank signs the forms and fills in the amounts in the same way as a bank's customer in this country draws an ordinary cheque. The selling bank advises the issuing bank of the numbers and amounts of the cheques issued, and also of the name of the person to whom they are sold. It also gives the issuing bank credit for the amounts drawn, and its Foreign Currency Account with the issuing bank is debited as soon as advice of the sale of the cheques is received.

As a rule, the back of each circular cheque bears a list of the most important branches and agencies of the issuing bank, at any of which the traveller can obtain cash in exchange for the instruments, so long as he can establish his identity, by his indorsement of the cheque, and, if required, by producing his passport or other evidence.

Circular Notes.—These instruments are very similar in effect to travellers' cheques. They consist of actual sight drafts on the issuing banker for certain round sums in the currency of the country of issue, being handed to the grantee in exchange for his cheque or cash for the

equivalent amount. On the reverse side of each circular note is a letter addressed to the agents and correspondents of the issuing bank, specifying the name of the holder and referring to a letter of indication in his hands.

The letter of indication embodies a request to the issuing bank's agents and correspondents to cash the circular notes and to recoup themselves by drawing on the issuing bank at sight. It also contains a specimen signature of the grantee and particulars of the numbers and amounts of the circular notes issued in his favour. This letter must be retained by the holder until all the notes are cashed, but should be surrendered to the banker cashing the last note. The following is a specimen of a circular note in actual use, with its accompanying Letter of Indication:—

CIRCULAR NOTE

THE LOMBARD BANK LIMITED	
No. 1793	London, E.C. 17th June, 19..
Circular Note for Ten Pounds Sterling.	
<p>GENTLEMEN,</p> <p>This Circular Note should be presented to you by <i>Mr James Brown</i>, whose signature appears on our Letter of Indication No. 108, with which <i>he</i> has been furnished. Please pay <i>him</i> or <i>his</i> order the value of Ten pounds sterling at the current rate of exchange.</p> <p>£10 : 0 : 0.</p>	
<p style="text-align: right;">We are, Gentlemen, Your obedient Servants, The Lombard Bank Limited, <i>Henry Robinson</i>, General Manager.</p>	
<p>To the Branches and Correspondents of the Bank.</p>	

[On the Back is printed:]

TO THE LOMBARD BANK LIMITED	
£10 : 0 : 0	London, E.C.
<p>At sight pay to the order of.....ten pounds sterling for value received at the rate of</p> <p style="text-align: right;">(Holder's Signature) (Date)</p>	

As a safeguard against loss and fraud the holder of circular notes should, as instructed thereon, always keep them apart from the letter of indication, for the notes will not be honoured in favour of a wrongful holder unless he is in possession also of the letter of indication.

A banker who is called upon to cash circular notes should take the

same precautions as in the case of a traveller's letter of credit. Frequently, circular notes are made payable abroad at fixed rates of conversion endorsed on them. Such rates are calculated well below par,

LETTER OF INDICATION

THE LOMBARD BANK LIMITED

No. 108

London, E.C.,
17th June, 19.

To the Branches and Correspondents of the Bank,
named in the following pages.

GENTLEMEN,

This Letter of Indication has been issued to *Mr James Brown*, who holds our Circular Notes, numbered 1793-1842, payable at our head office, London.

We request you to purchase any of these notes presented to you for encashment at the current rate of exchange for sight drafts on London, on them being indorsed in your presence in accordance with the specimen signature given below.

Specimen Signature,
James Brown.

We are, Gentlemen,
Your obedient Servants,
The Lombard Bank Limited,
Henry Robinson, General Manager.

IMPORTANT

It is absolutely imperative that the holder should immediately on receipt of this Letter of Indication and relative Circular Notes, affix his or her signature to the Letter of Indication as a protection against forgery should the Circular Notes fall into improper hands, and the Letter of Indication should always be kept apart from the Circular Notes.

The Letter of Indication should be retained by the holder until all the Notes have been cashed, when it must be surrendered to the banker cashing the last note.

and thus leave a certain profit to the agent, as he remits them to the issuing bank at the rate ruling on the day of encashment. In other cases, circular notes are encashed abroad at the cashing bank's buying rate for sight drafts on London on the date of encashment.

CHAPTER XVI

THE ELIMINATION OF RISKS CONNECTED WITH FOREIGN TRADE AND EXCHANGE (*Continued*)

BANK COMMERCIAL CREDITS.

ALTHOUGH the classification of credits into the two broad classes, *Commercial* and *Non-commercial*, is a convenient one for our purpose, it is not intended to indicate that travellers' cheques, circular notes, etc., are never used for business purposes. On the contrary, they may be just as usefully employed by commercial travellers and business men as by people who are merely on pleasure bent. But these modified forms of credit are rarely utilised, in the same way as the large and extremely important classes of commercial credits which we are now about to consider, to facilitate the movement of goods and to finance other forms of business transactions.

Confirmed Bankers' Credits.—The Confirmed Bankers' Credit is without doubt the most important of all forms of letter of credit. In its essentials, it consists of a written or cabled authority addressed by a bank, either directly or through an intermediary, to a specified person abroad (frequently a shipper or exporter) permitting the accredited (or the *accreditee*) to draw bills of specified tenor on the issuing banker up to a stated limit, and embodying an undertaking on the part of the issuing bank to accept and, in due course, to pay those bills provided the stipulations of the credit are properly fulfilled.

The question as to what is or is not a *Confirmed Bankers' Credit* is one which has from time to time been the subject of much conflict of opinion. By most people in this country who should be in a position to know, e.g., members of the London Money Market, a "confirmed" credit has always been regarded as one which falls within the definition which we have given, that is to say, one which embodies the *issuing bank's undertaking* to accept and pay bills drawn in accordance with specified terms. This view was upheld by the Courts in the case of *Stein v. Hambros Bank of Northern Commerce*, 1921, where a confirmed

credit was held to embody an *absolute* obligation on the part of the *issuing* bank, and one which could not be recalled without the consent of the beneficiary and of the bank to whom it was advised.

In spite of this, however, there are still some people who contend that a credit cannot be regarded as "confirmed" unless and until the *negotiating* banker himself confirms that any bills drawn on the strength of the credit will be negotiated by him and in due course honoured by the issuing bank. In other words, the responsibility of the *negotiating* banker is, as it were, "tacked on" to that of the issuing banker, a matter which may be of some importance to an exporter, in a far-away corner of the world, who has no knowledge of the standing of the issuing bank but may be quite ready to accept the assurance of a local bank well known to him.

In illustration of this position we may take the case of an importer in, say, Brazil, who wishes to purchase goods from this country, and for this purpose instructs his bank to open a credit in favour of an exporter in London. In due course, the London exporter is advised of the opening of the credit through the London agents of the Brazil bank, but if the exporter is not satisfied with the undertaking of a foreign bank about which he knows nothing, he may request the London agents concerned to "confirm" the credit, i.e., to supplement the contract with their own undertaking to negotiate the exporter's bills. If the London agents are willing to perform this service (for which they will, of course, receive a commission from the Brazil bank), they will cable the issuing banker for permission to add their confirmation and, on giving this, will assume responsibility to the beneficiary for the due payment of the drafts.

This meaning of the term "confirmed" credit is that which is generally understood in America, but, as will be seen from the definition given above, the term is applied in this country to mean nothing more or less than what Americans describe as an *Irrevocable Credit*, the main features of which are explained below.

Unconfirmed Credits.—The foregoing explanation of the accepted meaning of the term "confirmed" as applied to a letter of credit will at once make it clear that an *Unconfirmed* credit is one which involves no undertaking to the beneficiary, on the part of *either* the issuing or negotiating banker, that the bills drawn under the credit will be duly honoured. Such a credit is in fact little more than an intimation, forwarded to the beneficiary by the issuing bank through its agent or correspondent abroad, that the bank is at the time of writing prepared to honour the beneficiary's bills drawn under the credit, provided

specified conditions as to form, amount and term are complied with, but on the distinct understanding that the issuing bank is under no *obligation* to honour the instruments.

Some bankers consider that a credit of this kind may be cancelled *at any time*, whether it has been acted upon or not, but the better opinion undoubtedly is that such a credit may be cancelled only to the extent that it has not been acted upon by the foreign beneficiary when he receives notice of the cancellation or revocation. This opinion is based on the contention that, since the issuing bank advises the beneficiary that it is prepared to honour his drafts, the bank should be held to be at least morally bound to accept and pay any bills drawn before notice of cancellation is received, otherwise the beneficiary and the negotiating bank may be placed in a distinctly invidious position.

From a practical standpoint, it is obvious that a credit of this type would be of very little use in facilitating the negotiation of the exporter's drafts if the negotiating banker were not able to rely upon due honour of the bills by the bank issuing the credit. On the other hand, no reputable bank dealing with an unconfirmed credit could deny the fact that the credit, by its terms, clearly indicates that there are distinct limitations and possibly a certain degree of risk attaching to the negotiation of bills for the parties concerned.

For this reason, bankers who are asked to negotiate bills under such credits take every possible precaution to protect their position. They investigate the standing of both importer and exporter, and, if necessary, require an undertaking from the issuing bank to the effect that it will duly honour any bills drawn under the credit before notice of its cancellation or revocation is received, while they may further safeguard themselves by requiring control of any documents of title or other security which may be available, until the bills are duly paid.

In view of these disadvantages of unconfirmed credits, it is not always easy to see why they should be utilised in place of the confirmed type. One explanation is to be found in the fact that the charges on the unconfirmed variety are less than on a confirmed credit. Hence, two traders who have confidence in each other, and have no reason to doubt the faithful discharge of their mutual obligations, may wish to avoid having to pay the higher charge on a confirmed credit, but may desire to have the advantage afforded by a banker's acceptance, i.e., the benefit that the negotiating bank will negotiate drafts on a bank at a better price than drafts drawn direct on an unknown foreign importer.

Irrevocable Credits.—The term “irrevocable” as applied to a letter of credit is of American origin, and implies that the credit so described cannot be cancelled by the bank without the knowledge and consent of the beneficiary, who is consequently assured that, so long as he complies with the terms of the credit, any drafts drawn by him in accordance with its terms will be duly honoured. An *irrevocable* credit is thus much the same in its effect as a *confirmed* credit, although, to cover any possibility of doubt arising from different usage on the two sides of the Atlantic, the description of “confirmed and irrevocable” is sometimes applied to a credit which it is desired to make incapable of cancellation except by consent of all the parties.

But even a so-called “irrevocable” credit is in no wise different from any other form of contract in the respect that it can be cancelled or annulled with the consent (which should be evidenced by writing) of all the parties thereto, i.e., the person or persons at whose request the credit was opened, the bank or banks involved, and the beneficiary.

Revocable Credits.—A revocable credit, as its name implies, is one which may be cancelled by the issuing bank at any time after its advice, and even without notice to the beneficiary (*Cape Asbestos Co., Ltd. v. Lloyds Bank, Ltd.*, 1921). All unconfirmed credits and the majority of negotiation credits fall within this category, and, for this reason, bankers who are asked to negotiate bills under such credits first of all demand the assurance of the issuing bank that the latter will honour all bills negotiated by the correspondent banker before receipt by him of notice of cancellation.

The necessity for such a safeguard is accentuated in those cases where bills drawn by an exporter under a revocable or unconfirmed credit are signed by him with the addition of the words “Without recourse,” the significance of which is that the drawer is relieved of any liability on the instrument in the event of its dishonour by non-acceptance or non-payment. Since the negotiating bank cannot fall back on the beneficiary if a bill drawn “without recourse” is not duly paid, bills so drawn are not taken by a bank without the most careful inquiry.

The exporter may not, of course, draw in this way unless he is authorised to do so by the terms of the credit or by special arrangement with the negotiating banker. But if the beneficiary under a revocable or unconfirmed credit does not draw “without recourse,” he is placed in such a position that the so-called “credit” is really of very little advantage to him. He remains liable as drawer of the bills until they are ultimately paid, and he obtains no protection in

the event of their being unpaid. The only benefit accruing to him is that, so long as the credit is in force, he can discount his bills as soon as the relative goods are shipped, and he is thus enabled to obtain immediate command over funds which would otherwise be locked up until maturity of the instruments.

Sight and Acceptance Credits.—Strictly speaking, a “Sight” Credit differs from an “Acceptance” Credit merely in the fact that, whereas the former provides that the bill or bills drawn thereunder shall be paid at sight, on demand or on presentation to the grantor, an acceptance credit involves the acceptance of a draft or drafts made payable at a specified future date or specified period after sight.

But the term “Acceptance Credit” has in late years come to mean one which involves the acceptance of bills by a bank or accepting house of known reputation, the grantee being authorised to draw upon it in bills of specified term within prescribed limits as to period and amount. Such credits are usually qualified by the name of the city or town where the accepting bank is domiciled, for the reason that the location of the acceptor has an important bearing on the discount value of the bill. Credits which involve the acceptance of bills by a London bank or accepting house are invariably distinguished as “London Acceptance Credits,” and bills drawn thereunder form the bulk of the bank bills used for the investment of short-term funds on the London Money Market.

The majority of London bankers’ acceptance credits are opened with London bankers and accepting houses in favour of exporters, both here and abroad, by institutions which are acting on instructions of *importers*, either here or *in other countries*, given direct or through the intermediary of other banks. Such credits relate not only to goods shipped abroad from this country, but to goods which never touch our shores, and which are exported by one foreign country to another.

Thus a British importer of foreign merchandise, say, from Brazil, will arrange with a London banker or accepting house to issue a letter of credit to the Brazilian exporter, which enables him, as soon as he has shipped the goods, to draw a bill of exchange for the value of the shipment on the accommodating banker or accepting house. Possession of the letter of credit authorising him to draw bills on a house of established reputation, permits the Brazilian exporter immediately to sell his bill on the best terms to a Brazilian banker, and thereby to obtain a speedy turnover of capital without further anxiety as to the due payment of his bill. The British importer has to pay the London banker or accepting house a commission for its services

in thus facilitating his purchases abroad, and usually he gives a guarantee or security that he will put the acceptor in funds when or before the bill matures for payment.

In the same way that London bankers and accepting houses accommodate our own merchants, so they accommodate foreign merchants trading either with this country, or with foreign countries. A German merchant trading with China may arrange a documentary credit with a London banker, because in the contract with the Chinese exporter the latter has stipulated for payment by bills on London. Again, a South American importer may, through his own bank, arrange an acceptance credit with a London bank in favour of a British exporter. In such a case the latter will draw his bill and present it with documents attached to the London banker, by whom the draft is accepted and the documents retained for transmission to the foreign importer. The acceptance may be retained by the exporter until maturity, or, more usually, may be discounted by him with his own bank. As a rule, such bills do not leave this country, for the foreign importers arrange through their own banks to have the necessary funds remitted to London in time to meet the bills on their maturity.

Frequently the London banks and accepting houses who grant these acceptance facilities, rely, not upon the standing or responsibility of the exporters or importers, but upon the security afforded by current balances, deposits or other items, held by them on account of banks at home and abroad by whose instructions the credits are opened.

Another type of acceptance credit is the German *Akzeptkredit*, favoured in Continental countries but not in England, and used for financing internal rather than overseas trade. This type of credit really takes the place of the ordinary loan or overdraft, or of the discounted promissory note, common in English banking. Its main feature is that the issuing bank undertakes, in return for a commission, to accept a draft of specified term and amount drawn by its customer, thereby enabling him to turn it into cash by discounting wherever he pleases. As a rule, the customer is required to deposit security, but he must in any case undertake to put the accepting bank in funds two or three days before the bill falls due for payment.

Fixed and Revolving or Running Credits.—A *Fixed Credit* is one which is available only for a fixed total amount, either in one draft or in several, during a given period of time. A *Revolving Credit*, on the other hand, is one which is continuing, in the sense that the limit up to which the beneficiary may draw bills is automatically renewed from time to time in a prescribed manner. There are four main types:

(1) Where the credit is available, until cancelled, for an unlimited amount in all, but subject to a limit on the amount of bills outstanding at any one time. For example, it may be stipulated that no more bills shall be drawn after £1,000, if bills to that amount still remain unmatured and unpaid, until advice is received that a bill or bills have been paid and that the total amount of bills current has therefore been brought down below the limit.

(2) Where the amount drawn for in one draft at any one time is limited to a certain sum. When this has matured and is paid, a further draft can be issued for the same amount.

(3) Where a single bill up to a fixed amount may be drawn at any time, and the credit automatically renews itself for the same amount after each draft is issued.

(4) Where a limited amount in all may be drawn during a specified period, at the expiration of which the credit is automatically renewed for the same amount and for a similar period, e.g., £10,000 during any one month. Such a credit is re-available during each period for the limited amount only, so that if drafts in any period do not exhaust the limit, the balance cannot be carried forward to the following period. This type is sometimes referred to as an *Extended Credit*, and it differs from the first type in the fact that the drafts outstanding at any one time may be considerably in excess of the limit fixed for each period.

A common example of the last type of revolving credit is that known as an *Encashment Credit*, i.e., a credit opened by a bank in favour of a customer who is proposing to spend a holiday in another town, whereby the customer is accredited to encash at a branch or agency of his own bank cheques up to a fixed limit during any one day, week, month, or other defined period.

But the commercial advantage of a revolving credit is seen in the case of an agent who is engaged in buying regular "lines" of goods abroad for his principal. In such circumstances, a revolving credit may be opened to enable the agent to buy goods for his employer up to an agreed limit, and to draw bills up to that limit in favour of the suppliers of the goods. As soon as the goods are shipped, or the bills paid, etc., according to the terms of the credit, the agent's limit is automatically renewed, and he may proceed to purchase further goods up to the fixed limit.

Omnibus Credits.—These are in some degree akin to the revolving credits described in the preceding paragraph. They are usually granted to shippers of undoubted standing to enable them to finance their

purchases by drawing round sums on their bankers against a general lien over the goods handled by them. There is, of course, a limit to the amount of credit granted to any one shipper, and this is usually fixed as a percentage (say, 75 %) of the total invoice value of the goods in process of shipment at any particular time.

Clean or Blank Credits.—"Clean" Credits are those whereunder a beneficiary is empowered to draw on the issuing bank up to a given amount within a stated period in drafts which are not required to be accompanied by security in the shape of documents of title to goods or other instruments of value. In view of the absence of collateral security, banks necessarily exercise the greatest care in opening credits of this type, and it may be taken that, as a general rule, they are issued only in favour of persons of the highest standing, and, even then, only against such security as a cash deposit or a guarantee.

The common form of credit already referred to, issued by a bank in favour of a customer proposing to stay in another town, clearly falls within this category, but the term "clean" credit is usually applied to those credits opened by a bank in favour of a banking agent or correspondent, or in favour of a shipper of high standing who is permitted to handle the documents relating to his shipments and to send them direct to his customers, the consignees.

Blank credits play a conspicuous part in financing international trade. London bankers and accepting houses issue these credits to foreign bankers and firms with the object of enabling them to issue drafts on London when conditions are most favourable. Operations under blank credits are conducted largely from agricultural countries, where the demand for and supply of bills varies with the flow of produce. The foreign bankers are permitted to draw bills on London during the early part of the year, when, by reason of the preponderance of imports over exports, there is a demand for remittances to other countries. The grantees of the credits cover the debit balances thus created against them by remitting bills on London later in the year, when, owing to large exports of produce as the crops are being shipped, there is an increase in the supply of trade bills on London and they become relatively cheap.

The term *Exporters' Credits* is sometimes applied abroad, and especially in U.S.A., to clean credits of similar character, but of wider application. Whereas blank credits are opened in favour of banks and firms of first-class reputation, exporters' credits are issued to persons whose financial position and standing are not so readily

recognised. For example, a New Orleans cotton exporter is allowed to draw bills on London months before the cotton crop is baled for export in order to finance his purchases from the up-country growers.

Finance Bills.—Long bills drawn or “manufactured” by banks under clean or acceptance credits are known on the market as “Finance Bills,” by reason of the fact that they originate from financial operations undertaken with the object of making profit, and not directly from imports or exports of goods. While the best-known reason for the appearance of such bills on the market is the desire of the banks to profit by the temporary heavy demand for remittances on trade account, finance bills are, in fact, manufactured by the banks for many other reasons. They are drawn whenever the issuing bank sees an opportunity for making a profit by the movement of the funds represented by the bill. The bank may draw and sell such paper in order to obtain a temporary loan of funds for local investment or for financing some particular type of operation, as, for example, transactions in stocks and shares. It may issue bills in order to withdraw funds standing unremuneratively to its credit in the drawee centre, or to withdraw gold from that centre. On the other hand, bills may be issued at the instigation of the *drawee* bank, as, for example, when the latter wishes to employ part of its funds more remuneratively in the issuing centre, or when it has made arrangements to lend money in that centre for a special purpose or purposes.

In all such cases, the bills are drawn by the issuing banks on their agents or correspondents in the foreign centre, either against actual balances in the foreign currency concerned, or against securities deposited, or under standing arrangements for the granting of mutual credit up to an agreed limit.

Apart from the great utility of finance bills to the banking and business community, both as a means of making profit and as a means of remitting funds, they have an important influence on the prevailing rates of exchange. Generally speaking, finance bills are drawn by the banks only when the supply of exchange on a given centre is short of the demand, and their general effect is therefore to level up supply with demand and consequently to level out fluctuations in the rates of exchange. By so doing, they not only give greater steadiness to the basis of international settlements, but also reduce gold transfers to a minimum by preventing the movement in the rates of exchange beyond the gold points.

Documentary Credits.—All credits which cannot be classed as

“ clean ” or “ blank ” are described as *documentary*, implying that the issuing banker agrees to accept drafts drawn upon him only if they are accompanied by specified documents of title to goods, or other form of collateral security.

Some writers seek to distinguish a Documentary Credit as being of an entirely special type, but the description is correctly applied to any credit—revocable or irrevocable, confirmed or unconfirmed fixed or revolving—which calls for delivery of documents by the beneficiary.

Occasionally, it is true, the term “ Documentary Credit ” is applied in a restricted sense, to the form of revocable credit, used mainly in the Eastern trade, whereby an importer of goods on this side instructs his bank to advise its branch or correspondent in the exporter’s town to make advances to the exporter against bills drawn by him on the importer. The importer undertakes to accept and pay the bills, but no liability or responsibility is assumed by the bank concerned. Strictly speaking, such an arrangement does not involve a credit at all; it is certainly not a *bank* credit. It is merely a form of revocable authority or request, addressed by a banker to another bank at the instance of an importer, requiring the addressee to negotiate bills drawn by a specified person. In the absence of agreement to the contrary, the importer may cancel such an arrangement at any time, and, since there is no undertaking or guarantee by the importer’s bank that bills drawn will be duly honoured, banks are loth to negotiate, or make advances against, bills drawn under these credits unless the importer is of recognised repute.

The majority of documentary credits are issued to finance the shipment of goods, and accordingly call for delivery of what is known as “ a full set of shipping documents.” The documents may consist of some or all of the following: (a) a complete (usually triplicate) set of the *Bills of Lading* testifying to the shipment of the goods, made out to order, endorsed in blank, and marked “ freight paid ” unless a freight receipt is attached thereto; (b) an *Insurance Policy* covering all risks, marine and otherwise, from the point of delivery of the goods to the point of discharge; (c) duplicate *Invoices* giving full details of the quantity, marks and value of the goods, and certified, if necessary; (d) a *Certificate of Origin* or *Consular Certificate*, or both, certifying the country from which the goods are first exported; (e) in the case of certain classes of merchandise or of goods from a certain port, a *Consular Certificate of Health*; (f) in certain cases a *Weight Certificate*; and (g) a *Letter of Hypothecation*.

The essential features of these documents are briefly described in the following paragraphs, but at this point it may be stated that the documents tendered to the banker negotiating bills under a credit must be precisely those which are required by the terms of the credit, and any others are taken at the banker's own risk. If the credit requires a *full set* of bills of lading, the negotiating banker must not accept two parts and be content with the beneficiary's undertaking to provide the third copy at a later date. Similarly, if an insurance *policy* is stipulated, it is not sufficient to accept either a certificate of insurance or a broker's cover note, unless a letter of indemnity is obtained freeing the negotiating bank from responsibility.

Request to Issue a Credit.—It is plainly to a banker's advantage to take explicit instructions from a customer for the issue of any kind of credit, and with the object both of avoiding dispute and faithfully carrying out the customer's wishes, bankers invariably require the customer's signature to their own carefully drafted form of application. This precaution is specially necessary on the issue of a documentary credit, for, in such a case, the banker requires, not only the usual details applicable to all forms of credits, but also precise particulars of the security which is to be obtained from the beneficiary.

A specimen of a form actually used on the issue of a Confirmed Documentary Credit is reproduced on page 407. It will be observed that the customer signs the document over a sixpenny stamp, and that he is required to state whether the credit is to be opened by mail or cable, and to supply the name and address of the accredittee or accredittees. The instructions to the bank provide for delivery, with the bills drawn under the credit, of the bill of lading, marine insurance policy, invoice, and such other documents as the customer may prescribe. Moreover, the application contains an undertaking by the customer to keep the goods fully insured, and to accept and pay the drafts drawn under the credit, pledging the documents of title to the goods to the banker as security for the due performance of the contract. If necessary, the customer is also required to sign a separate Letter of Hypothecation, described on page 415.

The application form reproduced on page 407 is for a *confirmed* documentary credit, i.e., one involving an undertaking by the bank to accept and pay the bills drawn thereunder, provided they are accompanied by the specified documents. A somewhat similar form is used in the case of an *unconfirmed* credit. On page 408 is a specimen of the form of credit which may be issued by an English bank in response to the application reproduced on the opposite page

APPLICATION FOR A CONFIRMED DOCUMENTARY CREDIT

To

THE LOMBARD BANK LIMITED

NORTHTOWN BRANCH.

* Strike out mail or cable.

I/We request you to establish for my/our account by ^{* mail} cable a Confirmed

§ Credit on the following terms:—

§ A confirmed or irrevocable credit cannot be cancelled before the date of its expiry without the consent of the accreditees and others.

With your Agents in Philadelphia
In favour of (Name) *James Ambrose & Son*
(Address) *173 East Avenue, Philadelphia*

To the extent of £2000, say *two thousand pounds*, available for drafts at *sixty days'* sight drawn on *The Lombard Bank Limited, London, E.C.2.*, and documents as below covering *130 Bales Cotton* in one or more shipments ‡ for invoice cost at *fifteen pounds per bale, C.I.F.*, to be ^{despatched} shipped from *New Orleans* to *Liverpool*

‡ If any price inserted give unit price if possible and state if terms are F.O.B., C.&F., C.I.F., etc.

direct or indirect and with or without transhipment. Against delivery of the following documents —

(a) Invoice.

(b) Full set of Bills of Lading consigned to Order and blank endorsed. [Unless specifically otherwise instructed you may accept "received for shipment or transportation" Bills of Lading in the form customarily issued at the port or place of loading.]

(c) ;

(c) Insert any special documents required.

(d) ^{Marine} War Risk Policies or Certificates covering *twenty per cent.* above the C.I.F. value

(d) Insert additional risks or delete if all insurance is being effected here.

[‡ Marine and War Insurance will be effected by and I/we undertake to keep the said merchandise adequately covered by Policies of Marine, War, Fire and other usual risks in approved Companies and to lodge with you or produce the policies if called upon to do so, and in the event of my/our failure so to do you may so insure the said merchandise at my/our expense.]

‡ Delete this clause if beneficiaries are effecting insurance.

This Credit is to remain irrevocably valid until *six months from the date hereof.*

Insert further instructions.

In consideration of the opening of the above credit I/we hereby undertake to accept and to pay in due course all drafts drawn within the terms thereof and/or to put you in funds to meet your acceptances and/or to take up and pay for all documents negotiated thereunder on presentation and in default of our so doing you may sell the goods before or after arrival.

You are to have a lien on all goods, documents and policies and proceeds thereof for any obligations or liabilities present or future incurred by you under or arising out of this credit.

The transmission of instructions under the above credit and the forwarding of documents are entirely at my/our risk. You are not to incur any liability beyond seeing that the drafts and documents purport to comply with the terms and conditions of this credit.

You are authorised to debit my/our account with sums paid under this credit, also with commission charges.

Yours faithfully,

Thomas Brown.

Date, 7th June, 19 .

6d.

STAMP

On page 409 is a specimen of the form of an Irrevocable Documentary Credit issued by an American house. The reader will observe that it corresponds in its essentials to the confirmed type issued by a bank on this side.

Procedure Under a Confirmed Documentary Credit.—The procedure on the issue and utilisation of the confirmed credit, reproduced below, would probably be somewhat as follows. On completion of the application form by Thomas Brown, the Credit Outwards Department

CONFIRMED DOCUMENTARY LETTER OF CREDIT

THE LOMBARD BANK LIMITED

No. 1793.
£2000.

London, E C 2,
7th June, 19. . .

To MESSRS. JAMES AMBROSE & SON,
173 EAST AVENUE,
PHILADELPHIA.

DEAR SIRs,

You are hereby authorised to draw drafts upon this bank at sixty days' sight to the extent in all of £2000, say Two thousand pounds, for invoice cost of 130 bales of cotton to be shipped to Thomas Brown, of 25 Quayside, Liverpool

This credit expires, unless previously cancelled, six months from date. All drafts against it must be drawn and duly advised to us before that date, accompanied by Invoice, Bills of Lading issued to the order of the shipper and endorsed in blank, and Marine Insurance Policies or Certificates covering twenty per cent. above C.I.F. value.

Particulars of all drafts drawn under this Credit must be indorsed on back thereof, and the bills must specify that they are drawn under Credit No 1793, dated 7th June, 19. . .

We hereby engage with the drawers, indorsers, and *bona fide* holders of drafts drawn under and in compliance with the terms of this Credit, that against surrender to this Bank of the above-mentioned documents in order, the said drafts shall be duly accepted payable in London, England, on presentation in order, and that they shall be duly honoured on presentation in order at maturity

We are,

Yours faithfully,

THE LOMBARD BANK LTD.,
Henry Robinson,
General Manager.

of the Lombard Bank would advise the credit to the accreditees, James Ambrose and Son, not direct, but through the bank's agents in Philadelphia. By so doing the *issuing* bank ensures that the credit gets into the proper hands, and, at the same time, acquaints the accredittee with the name and address of its correspondents, with the possibility that any business ensuing will pass through them. On the other hand, the fact that the credit is not made available only at a specified bank in Philadelphia means that the accredittee is free to take his drafts and documents to any bank which he thinks will offer him the best terms.

The credit may be opened by cable or by mail, according to the customer's instructions. In the former case, the bank utilises its special code, which is applicable to all types of credits and enables a fully comprehensible message to be transmitted with the minimum of

IRREVOCABLE DOCUMENTARY CREDIT

GENERAL TRUST COMPANY OF NEW YORK

Foreign Department,
New York, 1st July, 19 ..

Letter of Credit No. 17326

MESSRS. THOMAS ROBINSON & Co.,
WHITEWAY HOUSE,
LONDON, ENGLAND.

GENTLEMEN,

We hereby establish our irrevocable credit in your favour for account of *Messrs. Henry White & Co., Inc., New York*, available by your drafts drawn at *Ninety (90) days' sight* on the General Trust Company of New York, 32 Lombard Street, London, E.C., for any sums not exceeding a total of *Twenty Thousand Pounds (£20,000) Sterling*, accompanied by commercial invoice, consular invoice, ocean bills of lading and marine insurance certificates ..
.. evidencing cost, insurance and freight ..
.. shipment of *Two Hundred (200) tons of Rubber from the Far East to New York during August and/or September, 19 ..*
Insurance as above ..

Ocean Bills of Lading must be drawn to the order of General Trust Company of New York.

A COPY OF THE CONSULAR INVOICE AND ONE BILL OF LADING MUST BE SENT BY THE BANK OR BANKER NEGOTIATING DRAFTS, DIRECT TO THE GENERAL TRUST COMPANY OF NEW YORK, *New York*.

The amount of each draft negotiated, with the date of negotiation, must be endorsed hereon.

All drafts drawn under this Credit should bear the clause "Drawn under G. T. Co. of N.Y. Letter of Credit No. 17326 dated New York, 1st July, 19.."
.....

We hereby agree with *bona fide* holders that all drafts drawn by virtue of this Credit, and in accordance with the above stipulated terms shall meet with due honour upon presentation and delivery of documents as specified to the General Trust Company of New York, *London*, if drawn and negotiated on or before *31st October, 19 ..*

Yours respectfully,

FOR THE GENERAL TRUST COMPANY OF NEW YORK,

James Brown,
Manager.

words. A written confirmation is thereafter forwarded by the first mail, and this will embody the essentials of the form of mailed credit reproduced on page 408.

In due course, Ambrose and Son will receive the documents relating to the first shipment of cotton from New Orleans, and, having verified that they are in order, will present them, with their draft at 60 days' sight on the Lombard Bank for the invoice value, either to

their own bankers, or to the local bank through whom the credit was advised. The *negotiating* bank will satisfy itself that the draft and documents are in order, and that they conform to the terms of the credit, after which they will hand Ambrose and Son their own cheque for the present value of the draft, or credit them in account, or they may arrange to collect the bill and credit the drawers with the proceeds at maturity

The draft and documents are then forwarded either direct to the Lombard Bank, or to the Philadelphia bank's London house, which will present the bill with the documents attached to the Lombard Bank for acceptance

After giving its acceptance, the Lombard Bank will retain the documents, but its manner of dealing with the bill will depend on whether it was presented direct or through the London agent of the Philadelphia bank. In the latter case, the acceptance will be handed to the agent, who will either hold it in portfolio until maturity, when the proceeds will be collected for account of the Philadelphia bank, or discount it immediately on the London Market as a fine bank bill, crediting the proceeds, as before, to its correspondent abroad. In the former case, where the bill is presented direct, it may be returned after acceptance to the Philadelphia bank, or it may be retained in portfolio on its account by the Lombard Bank, which will, in due course, credit its correspondent with the amount of the bill at maturity

Due advice of the acceptance of the bill and receipt of the documents is given by the Lombard Bank to the accommodated customer, Thomas Brown. If Brown is of sound reputation financially, or has deposited security, he may be allowed to have the documents immediately, so that he can claim the goods without delay. In other circumstances, he may be allowed to have them only against his signature to a Trust Receipt or Trust Letter. But in any event, if he does not take up the bill under rebate, he will be required to put the Lombard Bank in funds to meet its acceptance at least three clear days before its maturity, unless, of course, there are standing arrangements whereby the amount of the bill can be debited direct to his account.

DOCUMENTS APPERTAINING TO BILLS

The Bill of Lading.—The most important of the documents attached as security to commercial bills of exchange is the Bill of Lading, since it acts as a document of title to the goods mentioned

therein, as a contract for their carriage and as a receipt for their shipment. A bill of lading is defined as a document, signed by the master of a ship, acknowledging the receipt on board the ship of certain specified goods for carriage, and embodying an undertaking on behalf of the shipowners to deliver the goods to a named party, "or to his order and assigns", or merely "to order", upon payment of the freight stipulated for.

A bill of lading which acknowledges receipt of the goods concerned "in good order and condition" is described as *clean*, as distinct from a so-called *foul*, *dirty*, or *claused* bill of lading, which records some damage to part or all of the goods, e g, "one bale torn", "shipped in damp condition", "two casks burst", etc.

A bill of lading is not a negotiable instrument in the full sense of the term, and, if it declares that the goods concerned are deliverable to a given person, *without* the addition of the words "or order", the effect is that the goods can be claimed by that person only, and it is not essential that he should even have the document itself in order to obtain possession. He can claim the goods merely by presenting the shipping company's Arrival Notice and paying freight due. In such circumstances, the bill of lading is described as "straight", and is not a transferable document of title. It functions merely as a receipt for shipment and a contract of affreightment with the shipper.

But if the bill of lading is drawn, as is usual, to a named person "or his order", its effect is that the full property in the goods concerned may be transferred by mere delivery of the bill after endorsement by that person. The position is similar when the bill of lading is drawn "to order" merely, and no name is specified, in which case the document is deemed to be drawn to the order of the shipper, and the title thereto passes on his endorsement, followed by delivery. But in either of these cases, the transfer is "subject to equities", that is, the transferee, even if he takes the instrument for value and in good faith, will not obtain a good title if the instrument is in any way affected by fraud. No transferee can acquire, or pass, a better title to a bill of lading than that of his immediate transferor.

For safety and convenience, ocean bills of lading, like documentary bills, are drawn in sets of three or four parts, excluding any unsigned copies, whereas coastwise or short distance bills are usually "sola." As a rule, different parts are sent to the consignee or his agent (frequently a banker) by different mails, with the object of reducing to a minimum the risk of loss or delay in transit.

An unstamped and unsigned copy of the bill of lading (which is of

no value as a document of title) is retained by the consignor as evidence of the shipment for use in the event of a claim having to be made on the insurers under the marine insurance policy covering the goods. A second copy will be kept by the master of the ship to assist him in the identification of the goods.

“Received for Shipment” Bills of Lading.—The standard form of bill of lading invariably describes the goods concerned as “Shipped on board the S.S. _____”, the blank being filled in with the name of the ship on which the goods are loaded. Such bills are known as “Shipped” or “On board” bills of lading to distinguish them from what are known as “Received for Shipment” or “alongside” bills of lading, a description applied to those in which the shipping company states that the goods concerned are “Received for shipment on board the S.S. _____”.

The latter practice has arisen because of the fact that, at certain times, or in the case of through transit, it is exceedingly difficult for a shipping company to undertake definitely to carry goods on a particular ship. A “received for shipment” bill does not, therefore, afford evidence that the goods concerned have been received on board a given ship or, indeed, on *any* ship, and there is, consequently, no guarantee that actual shipment will not be delayed indefinitely.

The desirability of this practice has in recent years been subject to considerable discussion, and it is doubtful whether, where delivery of a bill of lading is demanded, a “received for shipment” bill is a good tender.

When a buyer opens a credit, he usually stipulates that it shall be available only for a prescribed period, the main object of imposing such a limit being to ensure that the goods shall be despatched within the time specified. Such a result might not be achieved in the case of a “received for shipment” bill of lading, and the delay may cause the buyer either to lose his market or to suffer loss through an adverse movement in the price of the goods concerned. American credits frequently overcome this difficulty by calling for “*prompt shipment*”, by which it is to be understood that the exporter will be allowed a margin of not more than thirty clear days.

It is obvious that no general rule can be laid down, and that each case must be considered on its own merits, due consideration being given to usage of the particular trade. At the same time, it would be unwise for bankers in this country to disregard the decision of the Courts to the effect that, in the absence of any evidence of usage to

support a contrary contention, a "Received for Shipment" bill is *not* a good tender under a C.I.F. contract.*

"Through" Bills of Lading.—Sometimes the bill of lading tendered to a banker as security purports to cover the goods concerned *throughout* their journey, from the place of origin to the place of shipment and thence to the port of destination. Such documents usually combine a railway receipt as well as a bill of lading, and are commonly issued by American railway companies in respect of goods moved from the interior to the seaboard for transfer abroad. In the great majority of cases, such a document will afford a perfectly good cover, but, in certain cases which have been taken to the Courts for decision, it has been decided that the through bills of lading in question were not a satisfactory tender under a C.I.F. contract, as they did not *continuously* cover the goods throughout the whole of their journey. For these reasons, a so-called "through" bill of lading should not be accepted without the most careful scrutiny.

The Warehouse Receipt and the Mate's Receipt.—As soon as the shipper has his goods ready prepared for shipment, he arranges the terms of the contract of carriage either with the agent of the ship-owners or with the master, and he agrees to deliver the agreed quantity of goods alongside the ship at a prescribed time. In due course, the goods will be delivered either on the quay or in lighters. Goods delivered to the loading quay are warehoused in readiness for shipment, and acknowledged by a *warehouse receipt* or *wharfinger's receipt*, from which the bills of lading are prepared after the goods are put on board. Goods loaded directly on to the ship are acknowledged by a "Mate's Receipt", which is subsequently exchanged for the formal acknowledgment and contract embodied in the bill of lading. In special cases, the bill of lading may be delivered by the master without production of the mate's receipt if he is satisfied regarding the right of the person applying for the bill of lading, and that the goods concerned are duly shipped. In such circumstances, it is possible that the bill of lading may be issued to someone who does not possess the mate's receipt, but, in the absence of fraud, the title to the goods goes to the possessor of the superior document, i.e., the bill of lading.

The Marine Insurance Policy.—It is the function of the marine insurance policy to cover the third of the great risks of international trade mentioned early in Chapter XV, viz., that the goods concerned

* *Diamond Alkali Export Co. v. Bourgeois*, 1921; *Scott v. Barclays Bank, Ltd.*, 1923.

may be damaged, lost or destroyed during the process of transfer from seller to buyer.

The policy is assignable, and should be made out to order of the shippers, so that it can be indorsed in blank and the title thereby vested in the holder by delivery. The policy indemnifies the holder to the extent of his insurable interest in the goods (i.e., their cost, plus freight, other charges and profit), in respect of all ordinary risks, but it is important to ensure that any special risks attaching to a particular class of commodity are also covered, e.g., breakage, leakage or sea-water damage.

Since payment in respect of loss or damage is made by the insurers to any person in *bona fide* possession of the policy, it is clearly of first importance that the document should be obtained and retained by a banker who advances on the security of the goods covered. Only by taking this precaution can the banker ensure that his security is not rendered quite worthless by an unforeseen accident on the high seas.

Occasionally, the broker who undertakes the insurance of goods issues in favour of the shipper a document known as a "cover note", pending the preparation and issue of the policy. This document is not, however, valid evidence of the insurance, and must on no account be taken in lieu of the policy, except, perhaps, as a purely temporary precaution.

The place of the actual policy of marine insurance is sometimes taken by a "*Certificate of Insurance*". This is a document evidencing the fact that the goods described in the bill of lading form part only of a larger consignment which is covered by a *general policy*, usually referred to as a "floating", "declaration" or "open" policy. The certificate is issued because the policy itself cannot be attached to more than one bill at a time, but it is subject to certain disadvantages. It is not a good tender under a C.I.F. contract, although it may be used for this purpose instead of the policy if it is properly stamped on the same basis, and if it is accompanied by a letter of indemnity.

Dock Warrants, Warehouse Warrants, and Delivery Orders.—When the goods included in a shipment reach their destination, they will be delivered by the shipowners into the custody of a dock company, warfinger, or warehouse keeper at the port of discharge, and the recipients will issue, in favour of the persons depositing the goods, a *Dock Warrant*, or *Warehouse Warrant*, as the case may be, stating that the goods named therein are deliverable to the person named in the warrant, or to his assignees by indorsement.

Though these warrants are transferable by indorsement and

delivery, or by delivery only if they are indorsed in blank, they are not negotiable and do not operate as a transfer of possession of the relative goods, since the dock company or warehousekeeper concerned cannot be compelled to hold the goods in question for anyone other than the original depositor. Hence, a banker who takes a warrant as security, should always require the depositor of the goods to give him a *Delivery Order*, addressed to the dock company or warehousekeeper, and requesting the latter to deliver the goods in question to the holder of the warrant. Frequently, the delivery order is already printed on the back of the warrant, and merely requires the signature of the person depositing the goods to enable them to be delivered either to a named person or to bearer.

Warehousekeeper's Receipts and Certificates.—These are “not transferable” documents issued by warehousekeepers in the form of receipts or acknowledgments for specified goods, and stating that the goods were deposited on a particular date by a named person, and that they are held at his disposal. These instruments are not documents of title, and the owner of the goods may obtain possession, without surrender of the certificate or receipt, merely by forwarding a signed delivery order to the warehousekeeper.

• **Other Documents Relating to the Shipment of Goods.**—It is specially important that the documents taken as security for the due payment of a bill shall include an *invoice* as *prima-facie* evidence of the contract of sale and purchase, specifying the name of the shipper and consignee, the name of the ship and its destination, and the description, quantity, weight, marks, price and value of the goods concerned, with details of any incidental charges or allowances, such as freight, insurance premium and trade discount. Occasionally, the weight of the goods is verified by the inclusion of a *Weight Certificate* (or *Weight Note*), which is issued by a dock company or by the port authority at the place of shipment, and certifies the weight, both gross and net, of the goods or packages enumerated.

In certain cases, as where the goods are destined for a country imposing a preferential tariff, a *Certified Invoice* is required, i.e., an invoice indorsed with a certificate by the exporter, specifying the place of origin of the goods and stating that the details thereon are substantially correct. Some countries (e.g., the United States and the South American countries) require goods imported to be accompanied by a *Consular Invoice*, i.e., an invoice bearing the *visa*, i.e., stamp and signature of the consul of the country to which the goods are being shipped, with the object of authenticating the particulars and facili-

tating the assessment of customs duties at the port of discharge. Others, again, require the invoice to be accompanied by a *Certificate of Origin*, signed by the consul of the country concerned as a proof of the place of manufacture or growth of the goods, while a *Certificate of Inspection* is occasionally required in the case of perishable commodities, as evidence of their condition at the time of shipment.

Apart from the more important documents described above, it sometimes happens that other declaratory forms are necessary before the goods can enter the foreign country without difficulty or delay, either of which may, of course, seriously affect the saleable value of the security and thus jeopardise the banker's position. It is, however, impossible to lay down any hard-and-fast rules as to precisely what documents are required in any particular case, and it is, therefore, of first importance that a banker handling documents in connection with bills of exchange should make himself acquainted with the requirements of the country and particular trade concerned.

Letters of Hypothecation.—The business of dealing with documentary bills is one which is hedged with such complexity and difficulty, that a banker who has taken every possible precaution to avoid risk of loss can rarely be certain that he is absolutely secure. For this reason it is usual for bankers who undertake to accept, discount or negotiate documentary bills, or who open documentary credits at their customers' request, or who grant a customer advances against bills for collection, to safeguard themselves by requiring the customer's signature to what is known as a *Letter of Hypothecation*.

This is a document, signed by the customer, conveying to a banker the full ownership of goods, at port of destination or otherwise, in respect of which he has made advances either by loan or by acceptance or negotiation of bills of exchange. The document gives the banker authority to insure and store the goods in his own name, to pay any charges thereon (including freight) to the debit of the customer, and in case of the latter's default, to sell all or any part of the goods to satisfy his claims thereagainst, subject to his right to proceed if necessary against the customer for any balance outstanding.

The documents of title may be released to the consignee only upon his actually handing over the amount of the bill, or he may be allowed to handle them, and so the goods, with varying degrees of freedom, as the prudence of the accommodating banker or accepting house may dictate.

Occasionally, the bank hands the bill of lading to an independent warehousekeeper, by whom the goods are stored and insured in the bank's name, and are thus available for inspection by the importer's

customers and for the taking of samples, but cannot otherwise be dealt with without the receipt held by the bank.

In certain parts of the world banks heavily interested in the movement of goods maintain their own warehouses. Banks in the United States have large cotton and grain repositories under their control, while Eastern banks, as is well known, have their own warehouses, colloquially referred to as "go-downs", for safeguarding goods held by them as security.

Trust Receipts.—Frequently, and especially when the goods are unsaleable without possession, or where there are inadequate warehousing facilities available, the release may be granted under a *Trust Receipt* or *Trust Engagement*, which is a document signed by the drawee of a documentary bill, admitting the bank's sole property in the goods, and undertaking to hold the goods and the full proceeds of the sale thereof in trust for the bank until due payment of the bill is made.

The release of goods against a trust receipt is, of course, an advantage to all parties concerned in those cases where the importer has a market immediately available, for then the goods can be at once sold and the bill paid out of the proceeds. This applies particularly where the bill concerned bears a bank acceptance, and the importer wishes to realise the goods in order to put the bank in funds to meet the bill, within the usual three days of its maturity. The customer's signature to a trust receipt is also obtained on the release of documents in the case of a D/A bill, when the banker concerned requires some security in addition to the bare acceptance of the importer.

Sometimes, and particularly in the East, the importer is allowed to take *part delivery* of a consignment of goods against his signature to a trust receipt. But this, and in fact the whole practice of releasing goods against trust receipts, while occasionally unavoidable, tends to impose a considerable amount of additional work on the banker, and is attended with certain disadvantages and a fair degree of risk.

The main disadvantage lies in the fact that the release of goods before maturity, whether or not it is safeguarded by the deposit of additional security or a guarantee, lessens the importer's incentive to take up the bill under rebate before it falls due, and thus release the banker's funds which are tied up in the bill. Furthermore, a banker who has once released goods held by him as security has no means of ensuring that they will be sold, or that they will be sold at the best price. There is always the risk that the security may be allowed to depreciate, or that the importer, particularly if he is allowed to take

partial delivery, may sell the most saleable portion of the consignment and have the remainder left more or less unsaleable on his hands. Again, if the drawee sells the goods but omits to transfer the proceeds to the banker, the latter's security is gone unless he can trace and identify the goods in the hands of a buyer who has not paid for them, and rely on the principle of subrogation. Finally, there is the difficulty that the drawer of a bill, and especially an English drawer, will rarely, if ever, agree to the release of goods against a trust receipt, so that the negotiating banker who accommodates an importer in this way probably does so entirely on his own responsibility, and thus must be held to assume liability for the due payment of the bill.

In the light of these considerations, reputable bankers nowadays consent to release goods held against a D/P bill only if they are stored in a neutral warehouse in the bank's name and subject to his holding the receipt, in which case no delivery can be made without his knowledge and consent. This procedure is commonly adopted in connection with imports of cotton and wool received in this country. If partial deliveries are made, they are strictly controlled and are noted carefully against the actual bills affected, and not against the first of the relative bills to mature.

THE NEGOTIATION OF BILLS UNDER CREDITS.

The Position of the Negotiating Banker.—From the considerations discussed in the foregoing paragraphs it will be clear that extreme care must be exercised by a banker who undertakes to negotiate bills drawn under a Letter of Credit. He must take every precaution to avoid incurring any liability himself, at the same time doing his best to carry out the instructions of his correspondent or agent, the issuing banker, with a view to safeguarding him as far as is possible.

His first care is, of course, to examine the credit as soon as it comes into his hands, to ascertain its precise terms and the extent of the undertaking given by the advising bank: whether the credit is confirmed or otherwise, whether it is revocable or irrevocable, and whether it is properly authenticated by a known signature or by code, verified by reference to his procuration and cipher files. This completed, the banker enters particulars in his Register of Credits Inwards, and, if it devolves upon him to advise the beneficiary, he will take immediate steps to do so, and, if necessary, add his own confirmation.

When drafts are presented, the duty devolving on the banker will depend on (a) whether the credit is clean or documentary; (b) whether

he is authorised to negotiate or to accept. In the case of a clean credit he will be handed a draft without documents, either for negotiation or acceptance, and he will proceed to do what is necessary after having satisfied himself concerning the identity of the beneficiary and the genuineness of his signature, the availability of the credit and the fact that the draft bears proper reference thereto. If the credit calls for negotiation, the bill will be discounted, and the proceeds will be either paid over to the beneficiary or credited to his account.

Far more responsibility is placed on the negotiating banker in the case of a documentary credit. Occasionally, such a credit merely states that payment shall be made against "shipping documents", without further specification, in which case the banker would be advised to adhere to the regulations formulated by the International Chamber of Commerce and demand a full set of ocean bills of lading, a marine insurance policy or a certificate of insurance, and duplicate invoices. All such documents, if accepted, must be in transferable and negotiable form, but, obviously, the absence of precise instructions puts a considerable weight of responsibility on the banker, since it devolves on him to decide whether or not a given document is in order.

More usually, the credit gives details of the security required, and, in such circumstances, it is the banker's duty not only to see to the details mentioned above, but also to ensure that the documents presented with the draft are precisely those called for by the credit. The invoice must be examined to see that its total corresponds with that of the bill, that it details the quantity and class of goods described in the credit, and that it is, if necessary, certified, and accompanied by a certificate of origin or a consular certificate. If an insurance policy is required, the banker will ensure that it applies to the goods, that it is properly stamped, and that it is made out in favour of the bank or endorsed in blank by the beneficiary. And he will not, of course, accept an insurance certificate, or a broker's cover note, or other evidence of the insurance in lieu of the policy unless he is authorised to do so.

Particular care must be taken in dealing with the bills of lading. The banker must ensure that he obtains a complete set of signed copies, fully conforming with the terms of the credit. As a rule, the credit will prescribe that the bills must be clean, made out "to order" of the consignor and endorsed in blank by him, and that they shall be marked "freight paid", or, if not so marked, accompanied by a *freight receipt* or endorsed with a "*freight release*" by the ship-broker.

If all signed copies of the bill of lading are not produced, the banker will require a satisfactory explanation of the missing part or

parts. He should not accept "foul" or "dirty" bills without explicit authority to do so, otherwise he may be held liable for accepting a security of doubtful value on behalf of his correspondent. Bills of lading made out to order of the *consignee* should not be accepted in the absence of special instruction, since, in such a case, the title to the goods can be transferred to the accrediting banker only if he obtains the consignee's endorsement.

The question of freight is also of importance. Banks insist on "freight paid" bills of lading, or on a freight receipt or freight release, because, if the freight has not been paid by the time the goods arrive at their destination, the bank will be unable to claim the goods until it has paid not only the freight, but also any port, landing and warehousing charges incurred at the port of discharge. Warehousing charges, especially, may prove to be heavy, since an unpaid shipowner will warehouse the goods concerned immediately they are disembarked, in which case they cannot be claimed by the banker unless the freight and other charges are paid.

Finally, in the case of "received for shipment bills of lading" the banker should confirm by enquiry or by examining the mate's receipt, if it is available, that the goods have actually been shipped on the vessel mentioned in the bills.

Having satisfied himself respecting the completeness and validity of the documents, he will proceed to discount (i.e., negotiate) or accept the draft, according to the requirements of the credit, retaining the documents for despatch one set at a time, by the next two mails, either to his correspondent or to the importer abroad, as the credit may direct. In the event of his having given his acceptance, he will enter details thereof in his Register of Liabilities on Acceptances, and will expect his correspondent to put him in funds to meet the bill at maturity.

His manner of dealing with a draft negotiated will depend on whether it is drawn in his own currency or in the currency of the issuing bank. In the former case, the amount of the bill will usually be debited to the Foreign Currency Account of the bank advising the credit, whereas, in the latter case, the draft will be purchased from the beneficiary at a rate of exchange appropriate to the class of bill to which it belongs; i.e., it would be purchased at the rate applicable to *bank* bills if drawn on the issuing banker, but at the rate applicable to *trade* paper if drawn direct on the importer abroad under a negotiation credit or authority to negotiate.

It may be observed, in conclusion, that the responsibilities of the

negotiating banker are towards his principal, the banker advising the credit, and not to the beneficiary, except in the case of a credit confirmed by the negotiating banker himself, in which case he is responsible to both parties.

The Position of the Beneficiary: Financing Outward Shipments.—

The benefit of a credit to the beneficiary necessarily depends very largely on the type of credit concerned, and this is particularly the case where a credit is opened in favour of an exporter to finance the shipment of goods. Clearly, the exporter is most favoured by that method of finance which enables him to obtain a steady turnover of his capital, with the minimum of risk, trouble and expense.

Of the various types of credit, the Confirmed or Irrevocable Bank Credit is obviously pre-eminent, since the exporter has the undertaking of a first-class foreign bank, usually strengthened by the confirmation of a local bank, that his drawings will be duly honoured, and that the credit cannot be revoked without his previous consent. Hence, although he remains technically liable as drawer for the due payment of all bills drawn, the risk is so slight as to be negligible for all practical purposes.

But even in the case of a confirmed credit, the exporter's position varies considerably according to whether a credit is opened by the importer (a) with a bank *in the exporter's own country*; or (b) with a bank *on the importer's side*. In the former case, the exporter can obtain the negotiating bank's acceptance and turn his bill into cash as soon as his goods are shipped, subject only to the deduction of discount on the face value of the instrument, since all charges in connection with the credit will be borne by the importer. In the second case, the exporter is placed under the necessity of forwarding the draft (and the documents, in the case of a documentary credit) through his own bank for acceptance by the bank in the importer's country, and, if he decides immediately to discount the bill, he must bear not only the usual charges for discounting, but also his own bank's charges for the service of obtaining the foreign bank's acceptance and collecting the proceeds in due course.

The exporter may prefer to avoid these disadvantages by himself arranging to open an acceptance credit *with his own local bank* or with a London accepting house, in which case he is placed in almost exactly the same position as if a confirmed credit with a local bank were opened by the foreign importer. This method is of special value where the foreign importer is either unable or unwilling to open a credit of any kind, or where the goods concerned are being sent out on

consignment, as may arise, for example, when an attempt is being made to develop a new market. Such a credit is ordinarily granted either on the issuer's own knowledge of the exporter, or against the security either of the documents of title to the goods shipped or of some other form of collateral.

A usual arrangement is that the bank or accepting house confirms to the exporter that it will accept bills representing about 75 % of the invoice value of goods exported, provided the bills are accompanied by the documents relating to the shipment, valid and in order, and provided the exporter signs a Letter of Hypothecation in favour of the grantor of the credit. After examination and verification of the documents, which are retained by the bank or accepting house, the bills are accepted and returned to the exporter, who can immediately have them discounted and the proceeds placed to his credit. The exporter pays a small commission for the facility and for the use of the acceptor's name, and, in return, obtains an instrument which he can at once turn into cash at the lowest market rate of discount.

It is necessarily of first importance that the bank or accepting house which has accepted bills under such a credit should retain complete control of the relative documents. As a rule, these will be sent abroad to a correspondent with instructions that they are to be handed to the consignee only against payment of the full invoice value of the goods, and it is usually stipulated that this payment must be received in London (either by T.T. or approved banker's cheque) three clear days before the bills accepted by the London bank or accepting house are presented for payment at maturity.

The position of an exporter is naturally not as good under an Unconfirmed or Revocable Credit, since he has no banker's assurance that his draft will be paid in due course, and he may go to the trouble of preparing his goods for export without any certainty that the credit will not be cancelled before the shipment is ready. On the other hand, the opening of a credit of even this less favourable type is not without its advantages to him. It enables him to draw bills on a bank instead of on his unknown correspondent, and he is thereby provided with a discountable instrument instead of one which he might otherwise have to send abroad for collection, during which time he would, of course, be out of a certain portion of his capital and remain liable on his signature as drawer until payment was effected. In the latter connection his position is improved, as we have observed, if the credit permits him to draw the bills "without recourse", or if it authorises the negotiating bank to pay him cash, *without the drawing of*

a bill, merely against delivery of the documents relative to the goods, as frequently happens, for example, in the case of shipments of fruit and wheat from the United States to Europe.

Unless the importer is a firm or person of reputed standing, the exporter's position is least favourable when he draws his bill direct on the importer under a Negotiation Credit or Authority to Negotiate. In such circumstances, he may not always be certain of being able to discount his drafts locally, a matter which will depend largely on his own financial position and reputation, or on the security which he is himself able to provide. In any case, he will be charged discount at the rate ruling in the foreign centre for trade acceptances, together with the bank's commission for remitting the bill and ultimately collecting the proceeds.

Marginal Deposit Receipts.—Where bills are drawn direct by an exporter on an importer abroad, it occasionally happens that the standing of the parties is not sufficient to enable the banker to negotiate the bills for their full value. As a result, it is the practice of banks to advance a specified percentage of the value of each draft and to retain a margin of about 25 % as security. The amount so retained is placed to the credit of the drawer on Marginal Deposit Account, interest being allowed thereon at agreed rates, and a Marginal Deposit Receipt being issued in favour of the customer. The receipt usually specifies that the funds are retained by the bank against all maturing bills, and the accepted rule is that the amount shall not be paid to the customer until all current bills have been paid and the proceeds received by the bank.

The So-Called "Red Clause".—Another type of facility granted to the exporter in connection with credits is that afforded under what is known as the "Red Clause", for the reason that it is given prominence by being printed in red on the credit form. Its object, generally speaking, is to empower the negotiating banker to grant limited accommodation to an exporter who is not financially strong, and who requires a payment on account of the goods ordered before he can place them in the hands of the shipping company, and thus obtain the bills of lading for attachment to his draft. The clause may authorise the negotiating banker to grant the accommodation either against the exporter's cheque or receipt for the funds, or against a warehouse certificate or receipt for the goods concerned. In the former case, the amount of the advance will be repaid by the exporter out of the proceeds of his discounted bill drawn against the shipment. In the second case, the warehouse receipt or certificate must be released by

the bank to enable the exporter to ship the relative goods, and it is usual to grant this release against the exporter's signature to a trust receipt or trust letter. In due course, the temporary advance granted to the exporter against the warehouse receipt is repaid by him out of the proceeds of the bill drawn against the shipment, and presented to the negotiating banker with the documents required by the terms of the credit. Thus the effect of the "red clause" is really to provide a "credit within a credit", but this secondary accommodation is necessarily restricted to a shorter period than the major contract from which it is derived.

Credit Information.—An important part of a bank's business in connection with the financing of foreign trade is that of obtaining and keeping up-to-date records of the standing and credit of those on whose names the bank is likely to have to rely in discounting or accepting bills of exchange. In a large bank this work is performed by a special section, known as the "Information" or "Intelligence" Department, wherein up-to-date records (including "Opinions" and "Reports") are maintained on a card index system, based on information collected by the bank from other banks, agents and correspondents, and from such recognised sources as *Lloyd's List*, *Perry's Gazette* and *Bradstreets' Ratings*. In a small office the same function will be performed by a Confidential Credit Book, in which are recorded details affecting the credit, standing, acceptances, bills of sale, etc., of the bank's own customers and others whose financial position the bank may require to know during the course of its business.

Closely associated with these records are the "Acceptance Registers", "Liability Files", and "Discount Ledgers", in which are recorded details of any direct or contingent liabilities of the bank's customers on bills, debtor current account, credits, and so on. It need scarcely be stated that these records are worse than useless if they are not kept absolutely accurate and entirely up to date.

Classes of Bills Discounted or Negotiated.—The bills which are discounted by bankers in London, and which find their way into the Discount Market, are variously described according to the standing and domicile of the parties thereto. Two broad classes, bank bills and trade bills, together with some of their recognised subdivisions, have already been distinguished in Chapter II, but one or two others may be briefly mentioned.

Bills are frequently referred to as "*one-name*" paper before they are accepted and bear merely the signature of the drawer, and as "*two-name*" paper after acceptance, when the signatures of both

drawer and acceptor are available on the instrument as security. Commercial bills in the former category are usually refused by English banks unless they can rely on the drawer's name alone, or unless they are protected by some other form of security.

The designation "*Foreign Domiciles*" is applied in the Discount Market to bills which are not readily discountable for the reason that they are accepted payable in London by foreign residents, whose assets, being held abroad, are not available in the event of dishonour. Similarly, the term "*Foreign Agency*" bills is applied to acceptances by the branches or agencies of foreign concerns, in which case also the fact that the major portion of the assets of the parties principally liable is held in other countries, renders the bills discountable on less favourable terms than bills of similar type drawn on firms operating entirely or principally in this country.

EXPORT CREDITS INSURANCE

One result of the collapse of credit and the failure of confidence which followed the Great War was to place serious obstacles in the way of the resumption of trade with many countries, mainly because neither merchants nor bankers were prepared to face the extraordinary credit risks involved. It soon became apparent that the position was likely to be especially grave in the case of our own country, so essentially dependent on a large stream of exports, and it was recognised that the revival of British overseas trade in several directions was possible only if the efforts of private traders were reinforced by State action.

Exhaustive enquiry among trading interests on this side revealed the fact that there was a considerable amount of business offering which exporters were unable to undertake because (a) they were unwilling to shoulder the exceptional risks involved, as in the case of a country where internal economic conditions were disturbed or uncertain; or (b) they were unable to finance the business owing to their inability to discount the relative bills with a bank; or (c) they were unwilling to face the risk *and* unable to obtain the necessary financial accommodation. The first of these difficulties could, of course, be covered by credit insurance, but this method is not even yet widely known or applied, and, in some cases, the premiums are higher than exporters are prepared to pay. Accordingly, the Department of Overseas Trade sought to formulate a scheme which would relieve the exporter of at least part of the risk, and, at the same time,

enable him to get his bills discounted by a bank at a reasonable rate.

Government Export Credits Schemes.—The first step was the passing of the Overseas Trade (Credit and Insurance) Act, 1920, whereunder the Department of Overseas Trade was authorised to make advances to traders up to a total of £26 millions in respect of exports to certain countries of Central Europe. For various reasons, the scheme proved a failure, and such heavy losses were sustained by the Government that in 1921 it was closed down, and replaced by a scheme of *credit guarantees*. Under this plan, which was intended to be self-supporting, the Government undertook to guarantee by its indorsement bills of exchange drawn by British exporters against shipments to certain countries, up to a specified percentage of their value, with the object of enabling the exporters concerned to discount the bills with their bankers and thus turn over their capital without undue delay.

This second scheme proved little more successful than its predecessor, and the Government was again involved in a slight loss. Accordingly, the whole arrangements were reviewed by a Committee set up in 1925 by the Department of Overseas Trade, and, as a result, the present Exports Credit Scheme was formulated. At the present time, this has four essential features:

- (1) In return for a premium paid by an exporter, the Export Credits Guarantee Department is authorised, until September, 1931, to guarantee, on behalf of the Government, up to 75 % of the face value of accepted sterling bills of exchange drawn in connection with the export of British goods.
- (2) The guarantees apply only to goods which are wholly or partly produced in the United Kingdom, since the main object of the scheme is to foster employment in this country.
- (3) The guarantees are unconditional and cover all risks, while payment is made immediately on the default of the foreign importer, up to the limit stipulated.
- (4) Guarantees may be given in respect of all the markets of the world, except Russia, and, so far as textiles are concerned, except India and the Far East.

Discussions between the Department, banks and trade interests resulted, in November, 1928, in the introduction of a *floating contract* (known as Contract B), the essentials of which are that the Department agrees with the exporter a schedule of names of foreign importers,

whom the exporter and the Department believe to be reasonably sound, and the amounts which shall be outstanding against those importers at any one time during a period not exceeding six months. The exporter is then covered for goods shipped to these purchasers during the six months, and unnecessary formalities are eliminated. At the beginning of the buying season, the exporter may cover the whole of his deliveries for many months ahead in the certainty that, to the extent of the Department Guarantee, he is protected against the risk of loss through bad debts. At the same time, he is afforded facilities for obtaining advances from his bankers, and knows with certainty that the advances can be liquidated at their due dates.

Since the premiums charged are fixed on an economic basis, the system is intended to be, and has proved to be, self-supporting, with the result that no burden is imposed on the taxpayer. The latest scheme has proved exceedingly successful, and an important service has thus been placed at the disposal of the exporting community, which availed itself of the facilities up to an amount of over £7,000,000 between July 1st, 1926, when the system was initiated, and March 31st, 1929. From time to time, representatives of the Export Credits Department visit all the important trading centres in the country with the object of meeting exporters and bank managers and of explaining to them how the facilities may be obtained.

Credit Insurance by Private Organisations.—The facilities thus provided by the Government have for some years been offered by private organisations formed under influential auspices, in particular the Trade Indemnity Coy., and the General Trading and Finance, Ltd. These *credit insurance companies*, as they are called, are open to give undertakings, in the nature of guarantees, whereby they hold themselves indefinitely responsible, in return for a premium, for any loss up to a specified limit which bankers or traders might sustain in connection with the export of goods.

The insurance is effected under a tripartite contract between the company, the bank concerned and the trader. The latter is required to take out a *Bill of Exchange Credit Policy*, on the strength of which the company provides the banker with what is known as a *Banker's Bond*, constituting an undertaking by the company to indemnify the bank up to an agreed limit, and within three months from the date of the default by the foreign importer, in respect of the amount of any bill dishonoured, together with the bank's charges and loss of interest, if any. The advantage of thus insuring against the risk that the foreign customer will fail to make payment, is that the exporter is

enabled to accept orders from buyers whose credit he would not otherwise rely upon, while, at the same time, it enables him to increase his turnover of capital.

Apparently, however, traders were slow to realise the benefit afforded by this form of protection until the matter was given publicity by the inception of the Government scheme. Since then it has become obvious, from the extent to which the traders have availed themselves of Government help, that the supply of these facilities by private enterprise is much below the potential demand, and, in spite of the anxiety of the Government to hand over its responsibility in this direction to commercial organisations, there is, as yet, little likelihood that it will be able to do so for some time to come.

Similar credit insurance organisations are at work in other countries, especially in the United States and Germany. In the former country, internal traders have long been protected to a material extent by the excellent credit information mechanism available through the services of such well-known bureaux as Dunn and Bradstreets, but in recent years steps have been taken to extend credit agencies in the international field. The American National Chamber of Commerce and the National Credit Men's Association have been giving increasing attention to this aspect of the matter, while, in the actual provision of credit insurance facilities, an association known as the American Manufacturers' Foreign Credit Underwriters has been particularly successful. In Germany, there exists what is known as the "Hamburg System of Credit Insurance", originated by the Hermes Credit Insurance Company, of Berlin, in collaboration with the German Government, whereunder a trader can insure his banker against any risks which the latter may incur by opening a bank credit in the trader's favour.

Vigorous efforts to extend the knowledge and application of credit insurance amongst traders throughout the world are being made by the International Credit Insurance Association, which has been responsible for a number of important conferences in Paris and London, called with the object of investigating the best means by which this class of insurance may be developed and applied for the furtherance of business and industry. Considerable importance is attached by the Association to the establishment of close relationship between credit insurance and banking interests, since it is realised that the removal of the multifarious obstacles to the development of international trade can be greatly assisted by effective co-operation between these agencies.

CHAPTER XVII

ARITHMETICAL OPERATIONS AND CONTRACTED METHODS

THE imperative need for speed as well as accuracy in calculations which have to be made in a busy commercial house, must be obvious to every reader. For this reason, and, at the risk of covering ground which should already be familiar, a few examples of abbreviated and contracted arithmetical methods are appended.

1. **Abbreviated Multiplication.**—The following short cuts should always be used.

To multiply by—

5	add a nought, and mentally halve.
9	“ “ “ deduct multiplicand.
11	“ “ “ add multiplicand.
20	“ “ “ double.
25	add two noughts, and mentally divide by 4.
125	“ three “ “ “ “ “ “ 8.

Much labour can be saved, when multiplying two quantities, by a judicious arrangement of the work, and by keeping a careful watch for digits or sets of digits in the multiplier, which are multiples of other digits following or preceding them.

In deciding which of two quantities to take as the multiplier, select that one which the more easily lends itself to this method.

Example 1.

$$\begin{array}{rcl}
 324567 & \times & 13212 \\
 \hline
 13212 & & \\
 \hline
 3894804 = & \times 12 & 12 \\
 42842844 = 1100 \times 12 = & 13200 & \\
 \hline
 4288179204 & & 13212
 \end{array}$$

Choose 13212 as multiplier, since 324567 cannot easily be split up. Multiply first by 12, and then multiply the first product

obtained by 11, taking care to place the first figure obtained in the second multiplication under the third place figure of the first product.

Example 2.

$$\begin{array}{r}
 765389 \quad \times \quad 189279 \\
 \hline
 6888501 \quad \times \quad 9 \\
 20665503 = 30 \times 9 = 270 \\
 144658521 = 700 \times 270 = 189000 \\
 \hline
 144872064531 \quad 189279
 \end{array}$$

189279 makes the best multiplier. Multiply first by 9, then multiply the first product by 3, and so on.

Example 3.

$$\begin{array}{r}
 561243 \quad \times \quad 168852 \\
 \hline
 6734916 \quad \times \quad 12 \\
 47144412 = 70 \times 12 = 840 \\
 94288824 = 200 \times 840 = 168000 \\
 \hline
 94767003036 \quad 168852
 \end{array}$$

In the last example we obtain three products instead of six, and the saving is considerable. The student should be continuously on the watch for similar cases in which a multiplier can be split up into its components, and should note that the presence of a decimal point does not hinder the application.

2. Abbreviated Division — The Italian Method. — The Italian method of division provides for the simultaneous performance of the operations of division and subtraction as the division proceeds, and effects a great saving of time and labour. The principle is capable of very wide application, and should be used by the student throughout his work. Although, at first, some difficulty may be experienced, a little practice will enable the work to be done quite easily, and the great saving of time in lengthy calculations is well worth a little extra trouble in accustoming oneself to the principle.

In the usual method of long division, the products obtained by multiplying the divisor by the digits in the quotient, are written down, and then subtracted, but in the Italian method the remainder *only* is written down as we proceed, the multiplication and subtraction being performed mentally.

An example will make this clear :—

Example 1.— $257868 \div 1102$.

Method :—

- (1) Draw a line under the figures of the dividend required for the first division.
- (2) Multiply the divisor by the first figure in the quotient, and subtract as you proceed, writing down the figures in the remainder.
- (3) Bring down the next figure of dividend, draw a line and proceed as before, using the second figure of the quotient, and so on.

$$\begin{array}{rcl}
 1102)257868(234 & \overset{(a).}{2 \times 2 = 4,} & 4 \text{ from } 8 = 4 \text{ (written down).} \\
 \underline{3746} & 2 \times 0 = 0, & 0 \quad ,, \quad 7 = 7 \quad ,, \quad ,, \\
 4408 & 2 \times 11 = 22, & 22 \quad ,, \quad 25 = 3 \quad ,, \quad ,,
 \end{array}$$

Bring down next figure 6, and so on for other lines, until the answer is obtained.

In practice, instead of subtracting, we write down as the remainder the figure required to make up to the figure above the product obtained by multiplying as in column (a), adding to the next multiplication any resulting tens figure.

Example 2.— $78934563 \div 1768$.

Proceed as follows :—

$$\begin{array}{rcl}
 1768)78934563(44646 & & \overset{(a).}{4 \times 8 = 32} + \overset{(b).}{1} = \overset{(c).}{3} \quad 3 \\
 \underline{8214} & 4 \times 6 = 24, & 24 + 3 = 27 + 2 = 2 \quad 9 \\
 \underline{11425} & 4 \times 7 = 28, & 28 + 2 = 30 + 8 = 3 \quad 8 \\
 \underline{8176} & 4 \times 1 = 4, & 4 + 3 = 7 + 0 = 7 \\
 \underline{11043} & &
 \end{array}$$

Remainder 435

Column (a) gives the figures to be written down for the remainder. Column (b) gives the figures to be carried forward at each step. Column (c), read upwards from 7, the bottom figure, indicates that the working is correct.

This method can be applied to decimals, and also to compound division involving money, weights and measures, and it should always be made use of by the student for these calculations. In

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such cases the compound quantities should be decimalised, and the division proceeded with in the ordinary way.

Example 3.—£7215 16s. 9d. \div 234.

$$£7215\ 16s.\ 9d. = £7215\cdot8375.$$

$$\begin{array}{r} 234 \overline{)7215\cdot8375(30\cdot8369} \\ \underline{195\ 8} \\ 8\ 63 \\ \underline{1\ 617} \\ 2135 \\ \underline{29} \end{array} = £30\ 16s.\ 8\frac{1}{4}d.$$

Contracted Methods applied to Decimals.—Decimal notation is used in most business calculations, and for practical purposes it is usually only necessary to work results correct to a given number of decimal places. By using contracted methods all superfluous work is avoided, without affecting the accuracy of the result. For instance, in dealing with money, a calculation to the third place of decimals gives a result correct to the nearest farthing. In working problems involving decimals, the result should be obtained to one place more than is actually necessary, so as to ensure that the subsequent approximation is correct to the place required.

In approximating a decimal to a required place, allowance must be made for the succeeding figure, and if this is five or more, 1 should be added to the last digit required, otherwise 0 is added.

Examples :—

345·627456 is 345·6	approx. to one place.
345·63	„ „ two places.
345·627	„ „ three places.
345·6275	„ „ four places.
345·62746	„ „ five places.

Addition and Subtraction.—In addition and subtraction the rule for obtaining the sum of several decimal quantities approximately correct to a given place is simple enough.

Rule: Approximate the quantities to one place more than that required, and add or subtract to this place, approximating the answer obtained to the required place.

This rule generally gives sufficiently correct results, but if a large number of quantities are to be added, two or three extra places should be allowed, on account of the large carrying figures.

Example 1.—Add $\cdot 00743$, $4\cdot 03459$, $2\cdot 76745$, $17\cdot 68$, $8\cdot 5916$ and $6\cdot 54329$ *correct* to 2 decimal places.

(a).	(b).
In full	Contracted method
$\cdot 00743$	$\cdot 007$
$4\cdot 03459$	$4\cdot 035$
$2\cdot 76745$	$2\cdot 767$
$17\cdot 68$	$17\cdot 68$
$8\cdot 5916$	$8\cdot 592$
$6\cdot 54329$	$6\cdot 543$
$39\cdot 62436 = 39\cdot 62$ to two places.	$39\cdot 62$

The third place in the answer is not written down, but allowance is made for the figure carried.

Example 2.—Subtract $29\cdot 7653929$ from $47\cdot 876549$ *correct* to three places.

$$\begin{array}{r} 47\cdot 8765 \\ 29\cdot 7654 \\ \hline 18\cdot 111 \end{array} = \text{Answer correct to three places.}$$

Example 3.—Subtract $107\cdot 6348987$ from $207\cdot 3214579$ *correct* to five places.

$$\begin{array}{r} 207\cdot 321458 \\ 107\cdot 634899 \\ \hline 99\cdot 68655 \end{array} = \text{Answer correct to 5 places.}$$

To obtain the answer *approximately correct* to five places, we add 1 to the fifth place to allow for the 9 in the sixth, and obtain, as the answer, $99\cdot 68656$.

Contracted Multiplication of Decimals.—In multiplying two quantities *correct* to a given place, the calculation should generally be made to one place more than that required, so as to obtain an absolutely correct result.

The following method should be used :—

- (1) Choose as multiplier the quantity which will give least work.
- (2) Reverse the multiplier and place the units digit under that digit in the multiplicand which is one place further to

the right than the number of places required correct. If the multiplier has no units figure, supply its place with a 0.

- (3) Multiply each figure of the multiplier into the digit directly above it, and those to the left of it, allowing for the nearest multiple of 10 from the figure to the right.
- (4) Set down the products obtained with the right-hand figure in each case directly under the units figure in the multiplier.
- (5) The decimal point will be in the same place as in the multiplicand if the figures are all kept under each other.

Example 1.

$$\begin{array}{r}
 373\cdot86150 \times 27\cdot195 \text{ to 3 places.} \\
 \cdot59172 \\
 \hline
 7477\cdot2300 \quad (a) \text{ } 27\cdot195 \text{ is best multiplier.} \\
 2617\cdot0305 \quad (b) \text{ Place units figure 7 under fourth place} \\
 \quad \quad \quad 37\cdot3862 \quad \quad \quad \text{digit 5 of the multiplicand.} \\
 \quad \quad \quad 33\cdot6475 \quad (c) \text{ Multiply } 2 \times 0 = 0 \text{ which is set down in} \\
 \quad \quad \quad 1\cdot8693 \quad \quad \quad \text{fourth place under units figure 7.} \\
 \hline
 10167\cdot1635 \quad 7 \times 5 = 35, \therefore 5 \text{ goes in fourth place.}
 \end{array}$$

Answer *correct* to three places is 10167·163.

„ *approx.* „ „ 10167·164.

Example 2.

$$\begin{array}{r}
 1234\cdot5672 \times \cdot003241 \text{ to 3 places.} \\
 142\cdot3000 \\
 \hline
 3\cdot7037 \quad (a) \text{ No units figure in } \cdot003241, \text{ therefore place} \\
 \quad \quad \quad \cdot2469 \quad \quad \quad 0 \text{ under 2 and reverse.} \\
 \quad \quad \quad \cdot0494 \quad (b) \text{ Multiply } 3 \times 5 = 15 + 2 \text{ carried (18 is} \\
 \quad \quad \quad \cdot0012 \quad \quad \quad \text{nearer 20 than 10), gives 7 to be placed} \\
 \hline
 \text{in fourth place.}
 \end{array}$$

Answer = 4·001

As a general rule, the work should always be done to one place further than that required, but in many commercial calculations strict accuracy in the last place is not essential, so that the multiplication can be made to the required place only, making careful allowance for carrying figures, as in the following example.

Example 3.

$$\begin{array}{r}
 373 \cdot 8615 \times 27 \cdot 195 \text{ to three places (see Example 1).} \\
 \underline{5 \cdot 9172} \\
 7477 \cdot 230 \quad \text{Place the units figure 7 under the } \textit{third} \\
 2617 \cdot 031 \quad \text{place digit of the multiplicand, and proceed} \\
 37 \cdot 386 \quad \text{as before, making careful allowance for} \\
 33 \cdot 647 \quad \text{carrying figures. } 7 \times 1 = 7 + 4 \text{ (ob-} \\
 1 \cdot 869 \quad \text{tained from } 7 \times 5 = 35) \text{ 11, and so on.} \\
 \hline
 10167 \cdot 163
 \end{array}$$

Method of Prediction.—In multiplying two long quantities correct to a certain number of places, it is often unnecessary to use all the figures given, and it is therefore advantageous to determine by the *Method of Prediction* how many figures must be retained in order to obtain a sufficiently correct result.

Rule for Multiplication.—The number of places which must be taken in *each* quantity is one more than the number of places required correct, either (a) *plus* the number of figures before the decimal point in the other quantity if it contains whole numbers, or (b) *minus* the number of cyphers immediately after the decimal point in the other quantity if it is a decimal.

Example 1.— $22 \cdot 1324156 \times 4 \cdot 3256398$ to two places.

Applying the rule to the first quantity we get—

$$2 \text{ (reqd. correct)} + 1 \text{ (integer)} + 1 = 4, \therefore \text{ take } 22 \cdot 1324.$$

For second quantity—

$$2 \text{ (reqd. correct)} + 2 \text{ (integers)} + 1 = 5, \therefore \text{ take } 4 \cdot 32564.$$

The last figure taken in each quantity must, of course, be approximately correct to the last place.

$$\begin{array}{r}
 22 \cdot 1324 \\
 465 \cdot 234 \\
 \hline
 88 \cdot 530 \quad \text{Note that if one more figure was taken} \\
 6 \cdot 640 \quad \text{in either quantity it would make no} \\
 \cdot 443 \quad \text{difference to the third row of figures,} \\
 \cdot 111 \quad \text{as we should obtain a digit for the} \\
 \cdot 013 \quad \text{fourth place only.} \\
 \cdot 001 \\
 \hline
 \text{Answer} = 95 \cdot 74
 \end{array}$$

Example 2.— $11.321456 \times .00032392$ to 3 places.

$$\begin{array}{r}
 3 \text{ (reqd. correct)} - 3 \text{ (cyphers)} + 1 = 1, \therefore \quad 11.3000 \\
 3 \text{ (reqd. correct)} + 2 \text{ (integers)} + 1 = 6, \therefore \quad .000324, \quad \underline{423.0000} \\
 \quad \quad \quad .0034 \\
 \quad \quad \quad .0002 \\
 \quad \quad \quad \underline{.0036}
 \end{array}$$

Answer = .004 to 3 places.

The 0's given in the above examples are included for the sake of clearness, but in practice they would be omitted, thus :—

Example 3.— $172.856432 \times .0041587$ to 2 places.

$$\begin{array}{r}
 2 - 2 + 1 = 1 \quad 172.9 \\
 2 + 3 + 1 = 6 \quad \underline{9514.}
 \end{array}$$

$\begin{array}{r} .691 \\ 17 \\ 9 \\ 1 \end{array}$
 The correct position of the figures is
 obtained by mentally filling in the
 0's.

Answer to 2 places = .72

Contracted Division of Decimals.—To find a quotient correct to a given number of places.

Method :—

- (a) Find by inspection number of integers in the quotient.
- (b) This added to number of decimal places required gives number of digits required in quotient.
- (c) Proceed by Italian method in the ordinary way until number of digits in quotient still to be found is one *less* than the number of digits in the divisor.
- (d) Instead of bringing down further figures of dividend, strike off a figure from divisor, and divide, making allowance for figure struck off.

Example 1.— $373.81936 \div 8.7243$ correct to 3 places.

$$8'7'2'4'3)373.81936(42.848$$

$$\underline{24 \ 847}$$

$$\underline{7 \ 398}$$

$$\underline{419}$$

$$70$$

Answer = 42.848

(a) No. of integers = 2.

(b) No. of quotient digits = $2 + 3 = 5$.

(c) Find one figure, and then strike off,
 because 4 still to be found = 1
 less than digits in divisor.

If the divisor has more digits than are required in the quotient retain one more and strike out the rest.

Example 2.— $373 \cdot 81936 \div 87 \cdot 24367$ to 3 places.

$$8'7'2'4'4)373 \cdot 81936(4 \cdot 284$$

$$\begin{array}{r} 24 \ 83 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \ 38 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \hline \end{array}$$

$$5$$

(a) No. of integers = 1.

(b) No. of quotient digits = $1 + 3 = 4$.

(c) No. of places in divisor = 5.

We, therefore, strike out the last 4 in divisor, but it is retained in the working so as to obtain the correct carrying figure.

In division, as in multiplication, it is advantageous to know how many places to retain, and the method of prediction is as follows :—

(a) Decide by inspection number of integers in quotient, or number of cyphers after the decimal point.

(b) Make number of divisor digits = number of places required correct, *plus* number of integers or *minus* number of cyphers in the quotient, and proceed by contracted methods.

Example 1.— $373 \cdot 819567 \div 8724 \cdot 3241$ to 4 places.

$$8'7'2'4)373 \cdot 82(\cdot 0428$$

$$\begin{array}{r} 24 \cdot 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \cdot 4 \\ \hline \end{array}$$

$$4$$

$$\text{Answer} = \cdot 0428$$

(a) No. of cyphers = 1,

(b) No of divisor digits = $4 - 1 = 3$.

Example 2.— $8972 \cdot 8345 \div 241 \cdot 73$ to 3 places.

$$2'4'1'7'3)897283(37 \cdot 119$$

$$\begin{array}{r} 17209 \\ \hline \end{array}$$

$$\begin{array}{r} 288 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ \hline \end{array}$$

$$22$$

(a) No. of integers = 2.

(b) No. of divisor digits = $2 + 3 = 5$.

$$\text{Answer} = 37 \cdot 119.$$

The method of prediction is very useful in division of money, and, as before indicated, the answer is taken to three places to get a result correct to farthings.

Example 3.—£98732 19s. 6d. \div 7546.

No. of integers = 2, \therefore take $2 + 3 = 5$ places in divisor

As we have only 4, we divide *twice* with original figures, bringing down one figure of the dividend.

$$\begin{array}{r}
 7'5'4'6)98732\cdot975(13\cdot084 \\
 \underline{23272} \\
 634 \\
 \underline{31} \\
 1
 \end{array}$$

Answer : £13·084 = £13 1s. 8½d.

From the examples it will be clear that for a simple division of two quantities, the number of digits to be taken in the dividend should be one more than the number of divisor digits.

In many exchange calculations a multiplication of several quantities is followed by the division of the product by another quantity, e.g.

$$\begin{array}{r}
 7382\cdot5 \times 891\cdot026 \\
 \hline
 8541\cdot09
 \end{array}$$

As the result is required correct only to a certain place of decimal, it is necessary to know how far the multiplication must be carried so as to ensure that the subsequent division is correct. The following rules should be observed :—

- (1) Decide the number of integers which will be obtained in the product.
- (2) From this number, and the number of integers in the divisor, decide how many integers *may be* obtained in the quotient. (Note that this is one more than the difference between the two numbers.)
- (3) Add to this the number of decimal places required correct, and so obtain the number of significant figures required in the product.
- (4) Subtract from the last number the number of integers in the multiplication result, and this will give the number of places required correct in the multiplication.

Example 1. $\frac{7382.5 \times 891.026}{8541.09}$ correct to four places.

- (1) No. of integers in the product = $(900 \times 7000) = 7$.
- (2) No. of integers in divisor = 4, \therefore No. of integers which may arise in quotient = $(7 - 4) + 1 = 4$.
- (3) No. of places required correct = 4, \therefore No. of significant figures in product = $4 + 4 = 8$.
- (4) No. of integers in the multiplication = 7, \therefore No. of places required in multiplication = $8 - 7 = 1$.

So multiply correct to the second place of decimal so as to get the correct first place.

$$\begin{array}{r}
 7382.5000 \\
 62.0198 \\
 \hline
 7382.50 \\
 664425.00 \\
 5906000.00 \\
 147.65 \\
 44.29 \\
 \hline
 8'5'4'1'0'9)6577999.4(770.1592 \\
 \hline
 5992364 \\
 \hline
 13601 \\
 \hline
 5060 \\
 \hline
 790 \\
 \hline
 22
 \end{array}$$

Answer correct to 4 places = 770.1592.

Note: If the first figure of the divisor were 1 or 6, or any number between, 4 integers would be obtained in the quotient. (See (2) above.)

Example 2. $\frac{638.45 \times 4.3972}{83.6394}$ correct to 3 places.

- (1) No. of integers in the product = 4.
- (2) „ „ „ divisor = 2.
 \therefore No. of integers which may arise in quotient = 3.
- (3) No. of places required correct = 3.
 \therefore No. of significant figures in product = 6.

(4) No. of integers in the multiplication = 4.

\therefore No. of places required in the multiplication = $6 - 4 = 2$.

\therefore Multiply to 3 places to get second place correct.

638·450	8'3'6'3'9'4)2807·39(33·565
<u>27·934</u>	<u>298·21</u>
2553·800	<u>47·29</u>
191·535	<u>5·47</u>
57·461	<u>45</u>
4·469	<u>3</u>
·128	
<u>2807·39</u>	

Answer = 33·565.

This method of prediction is particularly useful for interest calculations, where an odd number of days is involved, and calculations are required to the nearest farthing.

Example 3.—Find interest on £257 4s. 3d. for 248 days @ $4\frac{1}{2}\%$.

$$\text{Interest} = £257 \cdot 2125 \times \frac{248}{365} \times \frac{9}{200} = \frac{£257 \cdot 2125 \times 2 \cdot 232}{73}$$

(1) No. of integers in product = 3.

(2) No. of integers in divisor = 2.

\therefore No. of integers which may occur in quotient = 2.

(3) No. of places required correct = 3.

\therefore No. of figures in product = 5.

(4) No. of integers in multiplication = 3.

\therefore No. of places required *correct* in multiplication = 2

257·2125	73)574·098(7·864
<u>2·322</u>	<u>63 0</u>
514·425	<u>4 69</u>
51·443	<u>318</u>
7·716	<u>26</u>
·514	
<u>574·098</u>	

Answer = £7 17s. $3\frac{1}{4}$ d.

Example 4.—Interest on £311 8s. $6\frac{1}{4}$ d. for 348 days @ $3\frac{1}{2}\%$

$$\begin{aligned}
 &= £311 \cdot 426 \times \frac{348}{365} \times \frac{7}{200} \\
 &= \frac{311 \cdot 426 \times 2 \cdot 436}{73}
 \end{aligned}$$

- (1) No. of integers in the product = 3.
 (2) No. „ „ divisor = 2.
 \therefore No. of integers which may occur in quotient = 2.
 (3) No. of places required correct = 3.
 \therefore No. of figures in product = 5.
 (4) No. of integers in multiplication = 3.
 \therefore No. of places required *correct* in the multiplication
 is 2.

$$\begin{array}{r}
 311 \cdot 426 \\
 \underline{6 \cdot 342} \\
 622 \cdot 852 \\
 124 \cdot 570 \\
 9 \cdot 343 \\
 1 \cdot 868 \\
 \hline
 73)758 \cdot 633(10 \cdot 392 \\
 \underline{286} \\
 673 \\
 \underline{163} \\
 17
 \end{array}$$

Answer = £10 7s. 10d.

CHAPTER XVIII

DECIMALISATION OF MONEY AND INTEREST CALCULATIONS

Decimalisation of Money.—The currency units of most foreign countries are divisible into 100 parts, and fractional quantities are expressed as decimals of the unit of currency. As foreign exchange rates are usually quoted in decimals, and as most exchange, as well as the majority of commercial calculations are made in decimals, it is imperative that the student should be able to decimalise any sum in English currency quite quickly and easily. Several methods can be used, but the most practical is given below.

Method :—

- (a) The number of £'s is the integral part of the decimal.
- (b) The number of complete florins gives the first decimal place.

Note : 2s. = $\pounds \frac{1}{10}$ = .1.

- (c) The next two places = the number of farthings in the remaining shillings and pence plus 1 for each complete 24 farthings.
- (d) The remaining places are obtained by dividing by 6 the number of pence and farthings (expressed as a decimal of a penny) in excess of sixpence, or all the pence and farthings if less than sixpence, writing the resulting figures in the fourth and subsequent places.

Example 1.—Express £702 17s. 3½d. as a decimal.

(a)		£702
(b) No. of complete florins	=	.8
(c) Remainder = 1s. 3½d. = 61 farthings + 2 =	=	.063
(d) Pence and farthings under sixpence		
= $3 \cdot 25 \div 6$	=	.0005416̄
	Answer :	£702·8635416

Example 2.—£302 9s. 10½d.

(a)		£302
(b) No. of complete florins	=	·4
(c) Remainder = 90 ÷ 3	=	·093
(d) Pence and farthings over sixpence		
= 4·5 ÷ 6	=	·00075
		<u>£302·49375</u>

Example 3.—£117 18s. 5¾d.

(a)	£117
(b)	·9
(c) 23	·023
(d) 5·75 ÷ 6 =	·0009583
	<u>£117·9239583</u>

Example 4.—£129 16s. 0½d.

(a)	£129
(b) Florins	·8
(c) Remainder, 1	·001
(d) ·25 ÷ 6 =	·0000416
	<u>£129·8010416</u>

In these examples the answer is obtained correct to several places of decimals, but for practical purposes it is usually quite sufficient to decimalise an amount correct to three places of decimals. The degree of correctness required will, of course, depend on the problem which has to be solved, and if a multiplication of the amount is necessary, the complete decimal should be obtained by the foregoing method.

The decimalisation of a quantity to the nearest third place is most easily done by the following method, which depends on the facts that—

2s.	=	£ $\frac{1}{10}$	=	£·1
1s.	=	£ $\frac{1}{20}$	=	£·05
6d.			=	£·025 (= 24 farthings)
1s. 6d.	=	1s. + 6d.	=	£·075
½d.	=	£ $\frac{1}{960}$	=	£·001 (approximately)

Rule :—

- (1) The number of complete £'s is the integral portion of the decimal.

- (2) The first place is the number of complete florins, adding
 .05 for an odd shilling, and .025 for an odd sixpence,
 in the remainder.
- (3) Add in the second and third places the number of farthings
 in the remainder + 1 if 12 or over.

By this method the decimal is correct to the nearest third place, and practice will enable the operations to be made mentally, quite rapidly and easily. Students should note that by many other methods the figure obtained in the third place for amounts such as $10\frac{3}{4}$, $11\frac{3}{4}$, etc., is incorrect by .001.

Example 1.—£414 16s. $10\frac{3}{4}$ d.

$$\begin{array}{r}
 (1) \qquad \qquad \qquad \text{£414} \\
 (2) \text{ 16s. 6d.} = \qquad \qquad \text{.825} \\
 (3) \text{ } 4\frac{3}{4}\text{d.} = 19 + 1 \quad \text{.020} \\
 \hline
 \text{£414.845}
 \end{array}$$

Example 2.—£719 17s. $6\frac{1}{4}$ d.

$$\begin{array}{r}
 (1) \qquad \qquad \qquad \text{£719} \\
 (2) \text{ 17s. 6d.} \qquad \qquad \text{.875} \\
 (3) \text{ } \frac{1}{4}\text{d.} \qquad \qquad \text{.001} \\
 \hline
 \text{£719.876}
 \end{array}$$

Example 3.—£814 15s. $5\frac{3}{4}$ d.

$$\begin{array}{r}
 (a) \qquad \qquad \qquad \text{£814} \\
 (b) \text{ 15s.} \qquad \qquad \text{.75} \\
 (c) \text{ } 5\frac{3}{4}\text{d.} = 23 + 1 \quad \text{.024} \\
 \hline
 \text{£814.774} \\
 \text{or £814 15s. 6d.} = \text{£814.775} \\
 \text{Less } \frac{1}{4}\text{d.} = \quad \text{.001} \\
 \hline
 \text{£814.774}
 \end{array}$$

Example 4.—£505 19s. $11\frac{3}{4}$ d.

$$\begin{array}{r}
 (a) \qquad \qquad \qquad \text{£505} \\
 (b) \text{ 19s. 6d.} \qquad \qquad \text{.975} \\
 (c) \text{ } 5\frac{3}{4}\text{d.} = 23 + 1 \quad \text{.024} \\
 \hline
 \text{£505.999} \\
 \text{or £506} = \text{£506} \\
 \text{Less } \frac{1}{4}\text{d.} = \quad \text{.001} \\
 \hline
 \text{£505.999}
 \end{array}$$

Note: The second method shown in Examples 3 and 4 should always be used when the quantities are nearly complete sixpences or shillings.

In decimalising money, the working must not be shown as in these examples, but must be done mentally, and the result only written down.

Conversion of Decimals into £ s. d.—For most practical purposes it is only necessary to express a given sum of money to the nearest farthing, and this can be obtained by reducing a decimal quantity to its nearest third place, after which proceed as follows:—

- (a) Find by inspection the decimal representing the *nearest* sixpence (*Note:* 6d. = .025, 1s. = .05, 1s. 6d. = .075), and, as previously indicated, the first place of decimal represents florins.
- (b) Ascertain the difference, call this farthings, and add or subtract, as the case may be.

The integral part of the decimal is, of course, £'s.

Example 1.—Convert £.724 to £ s. d.

(a) Nearest 6d. = .725 or 14s. 6d.

(b) Difference = .001, ∴ deduct one farthing.

Answer = 14s 5½d.

Example 2.—Reduce £504.939 to £ s. d.

	£504
(a) Nearest 6d. is .95 or	19 0
	£504 19 0

(b) Difference = .011,	
∴ deduct	2½
	2½

Answer: £504 18 9½

Example 3.—Reduce £14.56759 to £ s. d.

Nearest third place = £14.568

	£14
(a) Nearest 6d. is .575 or	11 6
	£14 11 6

(b) Difference = .007, ∴ deduct	1½
	1½

Answer: £14 11 4½

Example 4.—Reduce £909·49876 to £ s. d.

Nearest third place = £909·499

Nearest 6d. would be 909·5 = £909 10s.,

∴ deduct one farthing.

Answer = £909 9s. 11½d.

Here again the examples are given in full for clearness only, but in practice the answers should be written down immediately, and the working done mentally.

Examples.

$$£112·836 \qquad \qquad = \quad £112 \ 16 \ 8\frac{1}{2}$$

$$£17·76375 = 17·764 \quad = \quad £17 \ 15 \ 3\frac{1}{4}$$

Great care must be used to see that the decimal representing the nearest sixpence is taken, for otherwise the answer will be incorrect. For instance, if in the last example 17·75 were taken as the nearest instead of 17·775, we should add 3½d. (= 14 farthings) instead of deducting 2¾d. (= 11 farthings).

Interest Calculations.—Calculation of interest on a sum of money for a specified period is necessary in most exchange operations. It has been previously pointed out that allowances for interest are necessary in calculating some rates of exchange, and also in determining the prices of bills.

Interest for Multiples or Fractions of a Year.—Simple Interest for a given number of years or for a part of a year is easily calculated by the formula—

$$\text{Interest} = \text{Principal} \times \frac{\text{rate } \% \text{ p.a.}}{100} \times \text{time.}$$

Example 1.—Find interest on £400 for 2 years at 5 % per annum.

$$\text{Interest} = £400 \times \frac{5}{100} \times 2 = £40.$$

Example 2.—Find interest on 575 francs for three months at 4 % per annum.

$$\text{Interest} = 575 \times \frac{4}{100} \times \frac{3}{12} = 5·75 \text{ francs.}$$

Mental Methods.—In all exchange operations when interest has to be calculated, the money should be decimalised if it is not already expressed in this way, as the division by 100 is simply

performed in all these calculations by moving the decimal point two places. The following methods should be known :—

- (1) Interest at 4 % for three months = $\frac{1}{100}$ of principal, \therefore move decimal point two places to the left (see Example 2 above).
- (2) Interest at 1 %, 2 %, 3 %, etc., for three months, can be easily found by moving the decimal point two places, and dividing or multiplying by 4, 2, 3, as the case may be, i.e.—

$$\begin{aligned} 1\% &= \frac{1}{4} \times 4\%, \therefore \text{divide by } 4 \\ 2\% &= \frac{1}{2} \times 4\%, \therefore \text{,, ,, } 2 \\ 3\% &= \frac{3}{4} \times 4\%, \therefore \text{multiply by } \frac{3}{4} \\ 6\% &= \frac{3}{2} \times 4\%, \therefore \text{,, ,, } \frac{3}{2}, \text{ etc.} \end{aligned}$$

Similarly, interest at 4 %, for 6, 9 or 12 months can easily be found by dividing by 100, and multiplying by 2, 3 and 4 respectively.

- (3) Interest at 5 % for one year = $\frac{5}{100} \times 1 = \frac{1}{20}$ th of principal.
 \therefore Treat £'s in principal as shillings, e.g. 5 % on £625 for 1 year = 625s. = £31 5s.
 5 % on £70 15s. (= £70.75) for 1 year = 70.75s. = £3 10s. 9d.
- (4) Interest at 5 % for one month = $\frac{1}{240}$ of principal.
 \therefore Treat £'s of principal as pence, e.g. 5 % on £625 for one month = 625 pence = £2 12s. 1d. By this means interest for any number of months is easily obtained.
- (5) Those rates which are met with in exchange calculations can be worked from the basis of the 5 % rate, which is so easily calculated, as shown above, e.g.—

$$\begin{aligned} 2\frac{1}{2}\% &= \frac{1}{2} \text{ of interest at } 5\%. \\ 1\frac{1}{4}\% &= \frac{1}{4} \text{ ,, ,, } 5\%. \\ 3\frac{3}{4}\% &= (\frac{1}{2} + \frac{1}{4}) \text{ ,, } 5\% \text{ or} \\ &\quad (1 - \frac{1}{4}) \text{ ,, } 5\%. \\ 4\% &= \text{Interest at } 5\% \text{ minus } \frac{1}{5} \text{th of itself.} \\ 4\frac{1}{2}\% &= \text{,, ,, ,, } \frac{1}{10} \text{th ,,} \\ 6\% &= \text{,, ,, plus } \frac{1}{5} \text{th ,,} \\ 6\frac{1}{4}\% &= \text{,, ,, ,, } \frac{1}{4} \text{ ,,} \\ 1\frac{1}{2}\% &= \frac{1}{4} \text{ of interest at } 6\%, \text{ etc.} \end{aligned}$$

- (6) In working rates of interest such as $3\frac{3}{4}\%$, $2\frac{1}{2}\%$, etc., it is often easiest to adjust the principal first, then work interest at 5% on the adjusted amount.

$$\begin{aligned}
 (a) \quad & 3\frac{3}{4}\% \text{ on } £726 \text{ for 1 year} \\
 & = 5\% \text{ on } (\frac{1}{2} + \frac{1}{4}) \text{ of } £726 \text{ for 1 year} \\
 & = 5\% \text{ ,, } £544.5 \text{ for 1 year} \\
 & = 544.5s. = £27 \text{ 4s. 6d.}
 \end{aligned}$$

$$\begin{aligned}
 (b) \quad & 2\frac{1}{2}\% \text{ on } £827 \text{ for 1 month} \\
 & = 5\% \text{ on } £413.5 \text{ for 1 month} \\
 & = 413.5 \text{ pence} = 34s. 5.5d. \\
 & = £1 \text{ 14s. } 5\frac{1}{2}d.
 \end{aligned}$$

Interest for a Number of Days.—The calculation of interest for a given number of days is more difficult, as 365 factorises only into 73×5 . The formula is:—

$$\text{Interest} = \text{Principal} \times \frac{\text{rate per annum}}{100} \times \frac{\text{days}}{365}$$

365 rarely divides out, so a division by 73 would be nearly always necessary to solve the formula. However, multiplying both numerator and denominator by 2, we obtain—

$$\text{Interest} = \frac{\text{Principal} \times 2 \times \text{rate} \times \text{days}}{73000}$$

The division of a decimal quantity by 73000 is easily accomplished by the approximation method known as—

The Third, Tenth and Tenth Rule.

- (1) Move the decimal point in the quantity *five* places to the left, i.e. take $\frac{1}{100000}$ of it.
- (2) Add to the figure so obtained, $\frac{1}{3}$ of itself, then $\frac{1}{10}$ of $\frac{1}{3}$ of it, and then $\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{3}$ of it.
- (3) Deduct $\frac{1}{10000}$ of the sum so obtained, and the result is the amount of interest required, expressed as a decimal.

The student should know this rule by heart, and *always* apply it in interest calculations involving days. The product $P \times 2 \times r \times d$ should first be obtained, and then the point moved, bearing in

mind that we need only work to *five* places to get an answer absolutely correct to farthings.

Note: If the interest rate includes a fraction, e.g. $4\frac{1}{2}\%$, it is frequently not necessary to multiply throughout by 2, because the required denominator 73000 will be obtained in multiplying by the fraction.

Example 1.—Interest on £221 17s. 6d. for 31 days at $4\frac{1}{2}\%$ per annum.

$$\begin{array}{r} \text{Interest} = 221 \cdot 875 \times \frac{9}{100 \times 2} \times \frac{31}{365} \\ = \frac{61903 \cdot 125}{73000} \end{array} \qquad \begin{array}{r} 221 \cdot 875 \\ 279 \\ \hline 1996 \cdot 875 \\ 59906 \cdot 25 \\ \hline 61903 \cdot 125 \end{array}$$

$$\frac{1}{100000} \times \text{product} = \cdot 61903$$

$$\frac{1}{3} = \cdot 20634$$

$$\frac{1}{10} \text{ of } \frac{1}{3} = \cdot 02063$$

$$\frac{1}{10} \text{ of } \frac{1}{10} \text{ of } \frac{1}{3} = \cdot 00206$$

$$\cdot 84806$$

$$\text{Less } \frac{1}{10000} \cdot 00008$$

$$\cdot 84798$$

$$\text{Answer} = \cdot 848 = \text{£}0 \text{ 16s. } 11\frac{1}{2}\text{d.}$$

Proof.

$$\begin{array}{r} \text{£}221 \cdot 875 \times \frac{9}{200} \times \frac{31}{365} \\ = \frac{22 \cdot 1875 \times 279}{100 \times 73} \end{array} \qquad \begin{array}{l} \text{Multiply by 279 to first place only,} \\ \text{because division by 7300 will move} \\ \text{point four places.} \end{array}$$

$$\begin{array}{r} 22 \cdot 1875 \\ \cdot 972 \\ \hline 199 \cdot 7 \\ 1553 \cdot 1 \\ 4437 \cdot 5 \\ \hline 6190 \cdot 3 \end{array}$$

$$73)61 \cdot 903(\cdot 848$$

$$\underline{3 \cdot 50}$$

$$583$$

$$\text{Answer} = \cdot 848 = \text{£}0 \text{ 16s } 11\frac{1}{2}\text{d.}$$

450 THE PRINCIPLES OF FOREIGN EXCHANGE

Example 2.—Interest on 74565·75 francs at $7\frac{1}{4}\%$ per annum for 101 days.

$$\text{Interest} = 74565 \cdot 75 \times \frac{29}{4} \times \frac{2}{200} \times \frac{101}{365} = \frac{37282 \cdot 875 \times 2929}{73000}$$

In this calculation two places correct are sufficient, therefore work to 3, moving decimal five places in principal (as halved).

$$\begin{array}{r}
 = \quad .372828\overline{75} \\
 \quad \quad 9292\overline{) } \\
 \quad \quad 3 \cdot 355 \\
 \quad \quad 7 \cdot 457 \\
 \quad \quad 335 \cdot 546 \\
 \quad \quad 745 \cdot 657 \\
 \hline
 \quad \quad 1092 \cdot 015 \\
 \quad \quad \quad \frac{1}{3} \quad 364 \cdot 005 \\
 \quad \quad \quad \frac{1}{10} \times \frac{1}{3} \quad 36 \cdot 400 \\
 \quad \quad \frac{1}{10} \times \frac{1}{10} \times \frac{1}{3} \quad 3 \cdot 640 \\
 \hline
 \quad \quad 1496 \cdot 06 \\
 \text{Less } \frac{1}{10000} \quad .15 \\
 \hline
 \quad \quad 1495 \cdot 91
 \end{array}$$

Answer = 1495·91 francs.

CHAPTER XIX

MONETARY UNITS AND SYSTEMS OF THE PRINCIPAL COUNTRIES—SIMPLE EXCHANGES

[The author is indebted to Messrs Thos. Cook & Son (Bankers), Ltd., of London, for much up-to-date information in connection with this chapter.]

THE table on pages 452-4 gives particulars of the monetary units of the principal countries of the world. To assist the reader, the Mint Pars of exchange with this country are given in sterling and also in currency in the case of those countries which are on a gold standard. In the following paragraphs brief details are given of the monetary systems of the more important States.

Fineness.—It is necessary to explain that by “fineness” is meant the proportion of pure metal in standard currency units. Our gold currency is $\frac{11}{12}$ ths fine, which means that in every 12 parts of standard gold from which our sovereigns are made, there are 11 parts of pure gold and 1 part of alloy. The standard gold of most other nations is $\frac{9}{10}$ ths, .900, or 900 fine, that is to say, there are 900 parts of pure gold in every 1,000 parts of the currency metal, so that our standard gold is of purer quality than that of most other countries. The reader will observe that it does not matter whether the parts are grains, ounces, pounds, or grammes—the fineness or proportion of pure gold is expressed in the same way.

MONETARY SYSTEMS OF THE PRINCIPAL COUNTRIES.

Great Britain.

4 farthings = 1 penny.
12 pence = 1 shilling.
20 shillings = 1 pound.

40 lbs. troy of standard gold, $\frac{11}{12}$ ths fine, are coined into 1,869 sovereigns.

1 sovereign weighs 123·27447 grains, or 7·98805 grammes, of standard gold.

Country.	Monetary Units.	Mint Par of Exchange.		Gold Coins.
		£ s. d.	Currency.	
GREAT BRITAIN	Sovereign (= 20 shillings = 240 pence)	—	—	1 sov., $\frac{1}{2}$ sov.
BRITISH EMPIRE.	—	—	—	—
Aden (<i>see</i> India)	—	—	—	—
Australia	British sovereign	1 0 0	1	British
British Honduras	Gold dollar (= 100 cents)	0 4 1 $\frac{1}{2}$	4 867	British and U.S. gold
British North Borneo	S.S. dollar (= 100 cents)	0 2 4 (fixed rating)	8 57	—
Canada	Dollar (= 100 cents)	0 4 1 32	4 867	British and U.S. gold and Canadian 5 and 10 dollars
Ceylon	Rupee (= 100 cents)	0 1 6 (fixed rating)	13 33	British gold and 15- rupee piece (Mohur)
Cyprus	Piastre	0 0 1 $\frac{1}{2}$	180	British
Hong Kong and Labuan ¹	Mexican or British dollar (= 100 cents)	—	—	—
India	Rupee (= 16 annas = 64 pice = 192 pies)	0 1 6 (fixed rating)	13 33	British gold and 15- rupee piece (Mohur)
Iraq (<i>see</i> India)	—	—	—	—
Irish Free State	British sovereign	1 0 0	1	—
Jamaica	British sovereign	1 0 0	1	—
Kenya, Tanganyika and Uganda	Shilling (= 100 cents)	0 1 0	20	—
Malaya (<i>see</i> Straits Settlements)	—	—	—	—
Malta	British sovereign	1 0 0	1	—
Mauritius and Seychelles (<i>see</i> India)	—	—	—	—
Mesopotamia (<i>see</i> India)	—	—	—	—
Newfoundland	Dollar on gold basis	0 4 1 $\frac{1}{2}$	4 867	—
New Zealand	British sovereign	1 0 0	1	British
Palestine	Gold pound (= 1,000 mils)	1 0 0	1	£P1
Straits Settlements	S.S. dollar (= 100 cents)	0 2 4 (fixed rating)	—	British gold
Sudan	Gold pound (= 100 pi- astres)	1 0 6	97 50	£E1, 50 piastres
Union of South Africa	British sovereign	1 0 0	1	British and S.A. gold
West Africa	British sovereign	1 0 0	1	British
EUROPE	—	—	—	—
<i>Latin Standard</i> ²	—	—	—	—
Albania	Lek (= 20 centimes)	0 0 9 513	25 2215	—
Latvia	Franc (= 100 centimes)			—
Latvia	Lat (= 100 groschi or santimes)			10, 20, 50, 100 lats
Luxembourg	Franc (= 80 pfennige)			—
Monaco	Franc (= 100 centimes)			20, 100 francs
Spain	Peseta (= 100 centimos)	0 0 7	34 58 $\frac{1}{2}$	20, 25 pesetas
Switzerland	Franc (= 100 centimes)			10, 20 francs
Yugoslavia	Dinar (= 100 paras)			10, 20 dinars
<i>Scandinavian Union</i>	—	—	—	—
Denmark	Krone (= 100 ore)	0 1 1 $\frac{1}{2}$	18 1595	5, 10, 20 kroner
Norway	Krone (= 100 ore)			5, 10, 20 kroner
Sweden	Krona (= 100 ore)			5, 10, 20 kronor
Austria	Schilling (= 100 groschen = 10,000 kronen)	0 0 7	34 58 $\frac{1}{2}$	25, 100 schillings
Belgium	Belga (= 5 francs = 500 cents)	0 0 6 858	35 00	—

¹ No Mint Par can be fixed for these currencies, which consist either of silver or paper.² Including countries which have adopted the same system of currency as the now abandoned Latin Union.

Country.	Monetary Units.	Mint Par of Exchange.		Gold Coins.
		£ s. d.	Currency	
EUROPE.				
Bulgaria ..	Leva (= 100 stotinki)	0 0 0½	673 659	—
Czecho-Slovakia ..	Krone (= 100 heller)	0 0 1½	164 25½	—
Dantzic ..	Dantzic gulden(=100D.pf)	0 0 9 6	25	—
Estonia ..	Kroon (= 100 sents)	0 1 1½	18 1595	—
Finland ..	Markka (= 100 penni)	0 0 1½	193 23	—
France ..	Franc (= 100 centimes)	0 0 2	124 2134	100 francs
Germany ..	Rmark. (= 100 pfennige)	0 0 11 748	20 43	—
Greece ..	Drachma (= 100 lepta)	0 0 0 64	375	5, 10, 20 drachmac
Holland ..	Gulden or florin (= 100 cents or 20 stivers)	0 1 7 824	12 107	5, 10 gulden
(Netherlands)				
Hungary ..	Pengo(=100 filler or garas)	0 0 8 62	27 825	—
Italy ..	Lira (= 100 centesimi)	0 0 2 6	92 46	5, 10, 20 lire
Lithuania ..	Litas (= 100 cents)	0 0 4 932	48·665	—
Poland ..	Wloty (= 100 grosz)	0 0 5·5	43 38	—
Portugal ..	Escudo (gold) (= 100 centavos) <i>nominal</i>	0 4 5½	4 50½	—
	Paper— <i>actual</i>	—	—	—
Rumania ..	Leu (= 100 bani)	0 0 0 3	813 6	—
Russia ..	Tchervonetz(=10 roubles)	—	—	—
	Gold— <i>nominal</i>	1 1 1½	0 946	—
	Paper— <i>actual</i>	—	—	—
Turkey ..	Pound, T£1 (= 100 piastres = 4,000 paras)	—	—	—
	Paper— <i>actual</i>	—	—	—
AMERICA.				
Argentina ..	Peso (= 100 centavos)	0 3 11½	5 05	—
Bolivia ..	Boliviano (=100 centavos)	0 1 6	13·33	—
Brazil ..	Milreis (= 1,000 reis)	—	—	—
	Gold— <i>nominal</i>	0 2 3	8 89	10, 20 milreis
	Paper— <i>actual</i>	1 4*	15	—
Chile ..	Peso (= 100 centavos)	0 0 6	40	10, 20 pesos
Colombia ..	Peso (= 100 centavos)	—	—	—
	Gold— <i>nominal</i>	0 4 0	5	2½, 5 pesos
	Paper— <i>actual</i>	—	—	—
Costa Rica ..	Colon (= 100 centesimos)	0 1 10 9	—	2, 5, 10, 20 colones
Cuba ..	Martí (= \$20 U.S.)	4 1 8 6½	0 2433	½, 1, 1 martí
	Silver peso (= 100 centavos = \$1 U.S.)	0 4 1 32	4 8665	—
Ecuador ..	Sucré (= 100 centavos)	0 0 10	24½	1 and 2 condor (condor = 25 sucres)
Guatemala ..	Quetzal (= 60 pesos)	0 4 1 32	4 8665	5, 10, 20 quetzales
	Gold— <i>nominal</i>	—	—	—
	Paper— <i>actual</i>	—	—	—
Haiti ..	Gourde (= 100 centavos)	—	—	—
	Gold— <i>nominal</i>	0 3 11½	—	1, 2, 5, 10 gourdes
	Paper— <i>actual</i>	—	—	—
Honduras ..	Peso (= 100 centavos)	0 4 0	—	—
Mexico ..	Dollar (= 100 centavos)	—	—	—
	Gold— <i>nominal</i>	0 2 0½	9 76	2½, 5, 10, 20 dollars
	Silver— <i>actual</i>	—	—	—
Nicaragua ..	Cordoba (= 100 centavos)	—	—	—
	Gold— <i>nominal</i>	0 4 1 32	4 8665	—
	Paper— <i>actual</i>	—	—	—
Panama ..	Balboa (= 2 pesos)	0 4 2	—	1, 2½, 5, 10, 20 balboas
Paraguay ..	Peso (= 100 centavos)	—	—	—
	Gold— <i>nominal</i>	0 3 11½	—	—
	Paper— <i>actual</i>	—	—	—
Peru ..	Libra (= 10 soles = 100 dineros = 1,000 centavos)	1 0 0	1	½, ½, 1 libra
Salvador ..	Peso or colon (= 100 centavos)	0 2 0 6	9 73	1, 2, 5, 10, 20 colones
United States	Dollar (= 100 cents)	0 4 1 32	4 867	1, 2½, 5, 10, 20 dollars
Uruguay ..	Peso (= 100 centesimos)	—	—	—
	Gold— <i>nominal</i>	0 4 3	4 71	—
	Silver— <i>actual</i>	—	—	—
Venezuela ..	Bolivar (= 100 centavos)	0 0 9½	25 25	5, 10, 20, 50 bolivares

Country.	Monetary Units.	Mint Par of Exchange.		Gold Coins.
		£ s. d.	Currency.	
ASIA.				
China ¹ ..	Silvertael [= 1,000-1,800 cash or li (variable unit)]	—	—	—
Indo China ¹ ..	Silver dollar (= 100 cents)	—	—	—
Japan ..	Yen (= 100 sen)	0 2 0½	9·80	5, 10, 20 yen
Korea ..	Won (= 100 chon)	0 2 0½	9 80	5, 10, 20 won
Persia ¹ ..	Kran (= 20 shahis = 1,000 dinars)	—	—	2 kran, ½, 1 toman (10 kran), and 2 toman
Philippines ..	Filipino (= 50 U.S. cents = 100 centavos)	0 2 0·66 (fixed rating)	—	—
Siam ..	Tical or baht (= 100 satangs)	0 1 0 82 (fixed rating)	11	Dos of 10 ticals or bahts
AFRICA.				
Algeria ..	Franc (= 100 centimes)	0 0 2	124 2134	10, 20 francs
Belgian Congo ..	Franc (= 100 centimes)	0 0 2	124 2134	—
Egypt ..	Pound (= 100 piastres)	1 0 6½	97½ pia.	British gold : £E and 50 pia.
Liberia ..	U S. dollar (= 100 cents)	0 4 1 32	—	—
Madagascar ..	Franc (= 100 centimes)	0 0 2	124·2134	10, 20 francs
Morocco ..	Franc (= 100 centimes)	0 0 2	124 2134	10, 20 francs
Tripoli ..	Lira (= 100 centesimi)	0 0 2 6	92 46	5, 10, 20, 50 lire
Tunis ..	Franc (= 100 centimes)	0 0 2	124 2134	10, 20 francs

¹ No Mint Par can be fixed for these currencies, which consist either of silver or paper

1 sovereign contains 113·0016 grains, or 7·322381 grammes, of *fine* gold.

1 lb. troy = 12 ozs., 1 oz. = 480 grains.

1 oz. troy = 31·1035 grammes.

Since 1816 gold has been the sole standard of value, and the gold coins used are the sovereign and half-sovereign. Legally, 1,869 sovereigns are to be coined out of the 40 lbs. troy of gold, $\frac{11}{12}$ ths fine, and a sovereign should therefore weigh 123·27447 grains, but a remedy allowance is permitted of 2 parts *per mille* more or less than this legal weight. Sovereigns cease to be legal tender when they weigh less than 122½ grains and half-sovereigns when less than 61½ grains. The gold coins issued by the mints at Pretoria, Sydney and Melbourne are legal tender here, and the English gold coins are also legal tender in Australia.

Prior to the passing of the Gold Standard Act, 1925, the Mint would coin gold for private account free of charge if the value was £20,000 or more, the only expenses being that of assaying, and the price being £3 17s. 10½d. per oz. standard. Now, however, all gold for coinage must pass to the Mint from the Bank of England, which is compelled by its charter to buy all gold offered to it at the price of £3 17s. 9d. per oz. standard. The Bank is compelled to sell gold at the rate of £3 17s. 10½d. per ounce standard, provided the

amount demanded is not less than 400 ounces troy of fine gold (about £1,700).

Silver Coins.—The common silver coins are the crown, half-crown, florin, shilling, sixpence, and threepence. Up to 1920, 66 shillings were coined out of one troy pound weight of silver $\frac{37}{40}$ ths fine. As the price of silver in normal times is usually about 2s. 6d. per oz., the Government makes a profit on the coinage of silver, which is called "Seigniorage." During the last few years, the price of silver has fluctuated considerably, and, at one time, the silver coins were actually worth more than their face value.

New Silver Coinage.—Silver coins now issued by the Mint are only 500 or $\frac{20}{40}$ ths fine, as against $\frac{37}{40}$ ths previously. The coins are made of an alloy of silver and nickel, and were first issued in 1920. Their face value is the same as previously.

Bronze Coins.—The bronze coins (95 parts copper, 4 parts tin, 1 part zinc) are the penny, half-penny, and farthing. Legally, 48 pennies must weigh 1 lb. avoirdupois of bronze, or one penny weighs nearly 146 grains; two half-pennies, however, weigh 175 grains.

Bank of England Notes are issued by the Bank of England for amounts of 10s., £1, £5, £10, £20, £50, £100, and upwards. The 10s. and £1 notes were first issued in 1928 to replace the Treasury notes of similar denomination issued by the Government during and after the Great War under the Currency and Bank Notes Act, 1914.

Legal Tenders :—

(1) Bank of England notes for any amount.

The Bank's 10s. and £1 notes are legal tender in England and Wales, Scotland and Northern Ireland for all purposes, including payment of the Bank's notes of higher denomination. By the Bank of England Act, 1833, a Bank of England note for £5 was made legal tender in England and Wales for payment of debts *above* £5 only, but by virtue of the Currency and Bank Notes Act, 1928, such a note is now legal tender in those countries for payment of £5 or over, except by the Bank or its branches. The Bank's notes of £5 and upwards are not legal tender in Scotland or Northern Ireland.

(2) Gold coins are legal tender for any amount.

(3) Silver coins are legal tender up to 40s.

(4) Bronze coins are legal tender up to 1s.

The silver and bronze coins are called *token* coins, as their intrinsic

value is in normal times less than their face value. The limit on the amounts for which they are legal tender keeps other more valuable forms of currency in circulation.

The British Empire.—*Australia.*—The monetary system and standard are identical with those of Great Britain, the coins of gold, silver, and bronze issued by the Commonwealth corresponding in value, weight, and fineness with those issued by this country, except that the silver coins are of our old fineness, $\cdot 925$, and that no silver coin above 2s. 0d. is issued. The gold coins are identical with our own, but the silver and bronze coinage is of special design. English coins circulate side by side with the Commonwealth issues.

Notes of various denomination are issued by the Commonwealth Government through the Commonwealth Bank, the recently formed central banking institution.

British West Africa.—British notes and coin circulate in the Colonies grouped under this heading, together with notes of small denomination and token coins of bronze and silver, issued by the West African Currency Board.

Canada. 1 dollar = 100 cents.

The standard is gold, based on the legal rate of $\$4\cdot 86\frac{2}{3} = \pounds 1$, or $\$1 \div 4s. 1\cdot 32d.$ Silver coins of 50, 25, 10, 5 cents and various smaller tokens of nickel and bronze are issued. The English sovereign and American eagle of 10 dollars are both legal tender to any amount and circulate freely, the eagle being accepted as equivalent to 10 Canadian dollars. The paper currency consists of notes of various denomination issued by the Government and the Canadian banks.

Ceylon. 1 rupee (18d.) = 100 cents.

Silver coins of 10, 25, and 50 cents are coined, and also nickel coins of 5 cents. English gold coins are current legal tender. Currency notes of various denomination in rupees are also issued by the local administration.

India. 1 pice = 3 pie.

1 anna = 4 pice. 1 rupee = 16 annas.

1 lac or lakh of rupees = 100000 rupees (written Rs. 1,00,000).

1 crore of rupees = 10,000,000 rupees (do. Rs. 1,00,00,000).

Note: 12,11,07,250 rupees = 12 crores, 11 lacs, 7250 rupees.
R.x. = 10 rupees. R.x. 7,990,000 = 79,900,000 rupees.

The standard coin is the silver rupee of 180 grains troy, $\frac{11}{12}$ ths

The rupee is legal tender for any amount, and, since March, 1927, its gold value is fixed for purposes of conversion at 8·47512 grains pure gold, i.e., 13·33 rupees = 1 sovereign, or 1 rupee = 18d. Between March 1920 and 1927 the sovereign was legal tender in India at the rate of £1 = 10 rupees, but it is now demonetised, and a new Indian gold coinage is in contemplation. Arrangements are also being made to transfer the control of the Indian currency and exchange from the Government to a Central Bank. In order to maintain the value of the rupee, the currency authority is compelled by law to buy gold, and to sell gold or gold exchange, at the fixed basis of 18d. per rupee. (See Chapter XIII.)

The Sudan. 1 piastre (= 10 millièmes) = 40 paras.
 1 Egyptian pound = 100 piastres.

Silver coins of 1, 2, 5, 10, and 20 piastres, and also several smaller nickel and bronze coins, are issued.

Outside Rhodesia, notes of various denominations are now issued solely by the South African Reserve Bank, and these will gradually supersede the issues previously made by the various other South African banking institutions. In Rhodesia, various banks still retain the right of note issue, and these notes pass freely in the Union, as do the Reserve Bank's notes in Rhodesia.

The Latin Standard.—In 1865, France, Italy, Belgium, and Switzerland agreed to adopt a uniform monetary system, and for this

purpose formed what is known as the *Latin Union*, which Greece joined later. The Union adopted a double or bi-metallic standard of value, based on gold and silver, coins of either metal being made equally legal tender in their respective countries at the legal ratio of $15\frac{1}{2}$ of silver to one of gold. The arrangements provided that the monetary units or standard coins, although of different design and, if desired, of different names, should all be of the same weight and fineness, and should contain approximately $\cdot 32258$ gramme of gold, 900 fine, giving, in each case, a mint parity with British currency of $25\cdot 2215$ per £1.

Under the terms of the Convention, the issues were to be proportionate to the population of each country concerned, and, although the respective currencies were to be legal tender in the country of issue only, they were to be accepted and be interchangeable by the banks in each of the countries at their face value. Silver coins of each country were to circulate in the others at the agreed ratio of $15\frac{1}{2}$ to one of gold.

For over forty years the gold franc, or its counterpart, was the recognised legal monetary standard in an area peopled by over 110 million inhabitants, and ranked as the basis of the most important monetary system in Europe. In consequence of the Great War, however, the arrangements had to be abandoned and the Union was dissolved. In December, 1925, Belgium officially announced her retirement from the compact and, in 1926, instituted a new money of account, the *belga*, equivalent to 5 of the old franc currency. In August, 1926, the Bank of France was given the necessary authority by law to evaluate its stock of gold coins at its metallic value, and not at its nominal value. In September, 1926, Italy legally fixed the value of its silver coins at five times the value agreed upon by the Latin Union, and finally, in December of that year, Switzerland formally announced her decision to regard the Union as dissolved.

Of the original participants only Switzerland still maintains a gold currency standard based on the weight and fineness adopted by the Union, and even that country has been compelled to give up the bi-metallic system and demonetise silver as legal tender. The same system as that adopted by the Latin Union has, however, existed in Spain since 1891, and has also been adopted by two of the new post-war European States.

The various countries whose currencies are now based on this standard, which, for convenience, we describe as the *Latin Standard*, are given below. As a rule, token coins of silver, nickel, and bronze

are issued by all these countries, but gold does not circulate and the currencies consist largely of paper money of various denomination.

Latvia (Centre quoted: *Riga*).

1 lat = 100 santimes or graschi.

The currency of the post-war State of Latvia was based in August, 1922, on a monetary unit known as the *lat*, equivalent to the gold franc adopted by the old Latin Union, and thus containing ·32258 gramme of gold, 900 fine, or ·2905 gramme of pure gold.

Spain (Centre quoted: *Madrid*).

1 peseta = 100 centimos.

1 peso duro or piastre = 5 pesetas.

Spain, as we have seen, adopted the same currency system as the now extinct Latin Union, her monetary unit, the *peseta*, having a mint parity with the sovereign of 25·2215 pesetas per £1. The monetary system is still legally bi-metallic, but in reality the legal tender silver 5-peseta pieces, weighing 25 grammes, 900 fine, form the basis of the currency. In addition to the new gold coins of 5, 10, 20, and 50 pesetas, the old gold coin, the *doubloon* (value £3 4s. 8d.), is still in existence. Various minor coins in silver and bronze are issued, but the currency consists chiefly of notes of various denominations issued by the Bank of Spain. The Bank's note issue up to 4 milliards of pesetas must be covered by 40 per cent. gold and 5 per cent. silver, but if the issue is between four and five milliards, the cover must be as to 50 per cent. gold, and as to another 10 per cent. silver.

In spite of her neutral position during the Great War, Spain, by reason of various internal difficulties, was unable to maintain the parity of the peseta with gold, although the depreciation was at no time very great. At the time of writing (July, 1929) the rate of exchange on Madrid has for some time been stable at about 34 per £1, and the Spanish Government has announced its intention to return to the gold standard, presumably at about this parity.

Switzerland (Centre quoted. *Berne*).

1 franc == 100 centimes.

Switzerland, having remained neutral during the Great War, was able to maintain the gold standard throughout the period of hostilities. Nevertheless, the circulating currency, like that of other European countries, has for some years past consisted mainly of notes of various denomination, together with token coins of silver and nickel.

Except for some period during the Great War, gold coins have been maintained in circulation since Switzerland first issued her own gold coinage in 1883.

The disorganisation of the Latin Union during the War naturally caused considerable difficulty to Switzerland, as the only one of the original participants able to maintain her currency on a sound basis. When the Swiss franc stood at the premium in relation to the dollar, it became profitable to dump in Switzerland the gold coins of the other countries constituting the Latin Union. On the dissolution of the Union, however, the Swiss National Bank took steps to withdraw from circulation in Switzerland all French, Italian, and Belgian gold coins, and as a result the Bank, by the end of 1926, possessed foreign gold coins to the amount of $95\frac{1}{2}$ million francs. Since the majority of these coins were worn, their accumulation involved a very considerable loss, apart from the expense which had to be incurred in having such coins restruck with the Swiss national design.

Early in 1929 an expert Committee, appointed by the Swiss Government to consider the currency position, recommended that the country should return to the full gold standard, and that the circulation of gold coins should be resumed. The National Bank of Switzerland will not, however, redeem its notes (which must have a gold backing of at least 40 per cent.) in gold coins until other central banks do so, and in the meantime a gold exchange standard has been adopted. The notes of the National Bank are convertible, at its option, into gold coins, gold in the form of bars or gold exchange. Gold exchange must not, however, be sold at a higher exchange rate than the export point for Swiss gold coins to the foreign centre concerned.

The decision of the Swiss authorities to adopt a gold exchange standard in place of the full gold standard which Switzerland is undoubtedly in a position to institute and maintain, indicates that the authorities are fully appreciative of the difficulties caused by the present world scramble for gold. At the same time, it is a "bull-point" for the gold exchange standard system, which is still regarded in many quarters as inferior to the gold bullion standard or full gold standard.

Yugo-Slavia (Centre quoted: *Belgrade*).

1 dinar = 100 paras.

The currency of this post-war State consists mainly of inconvertible notes of five dinars and upwards, issued by the National Bank of Yugo-Slavia, against the security of the State domains and a gold

reserve of not less than one-third of the total issue. In addition to the paper currency, metallic token money of nickel and bronze is in circulation.

The Scandinavian Union.

Norway (Centre quoted: *Oslo*)
Denmark (Centre quoted: *Copenhagen*) } 1 Krone = 100 ore.
Sweden (Centre quoted: *Stockholm*). 1 Krona = 100 öre.

The Scandinavian Mint Convention was formed in 1873 between Denmark and Sweden, Norway joining afterwards. By this Convention a gold standard was established. The monetary unit is the silver krone (Denmark and Norway), krona (Sweden), which is legal tender up to 20 kroner only. The gold coins are 20-, 10-, and 5-kroner pieces, the Mint Regulations prescribing that one hundred and twenty-four 20-kroner pieces, 900 fine, must be coined from 1 kilogramme of fine gold, giving a mint par with Britain of 18·159 kr. per £1. Various bronze and silver coins, as well as notes issued by the respective central banks, are current.

The original arrangements provided that the gold coins, token coins, and central bank notes of each country should be freely accepted in the other countries, and that the coin and note issues of the three countries should be interchangeable. In consequence of the War, the arrangements broke down, and in 1924 the Convention was formally repealed. Since then the Union has been revived in a modified form. Gold coins have once more been made interchangeable as between the three countries, but token coins will not be accepted outside their country of origin. The decision as to whether the notes of the central banks shall in future be mutually redeemed has been deferred for the time being.

In the meantime, Sweden, which maintained the gold standard throughout the War, has resumed convertibility of her notes into gold coin. Denmark maintains a *gold bullion standard*, her National Bank being compelled to issue gold coins, gold bars or gold in other form in exchange for its notes at the rate of 2,480 kroner per kilogramme of fine gold. A similar gold bullion standard is in operation in Norway.

Austria (Centre quoted: *Vienna*).

1 schilling = 100 groschen.

The gold standard was adopted by the dual State of Austria-Hungary in 1892, the unit being the gold krone or corona, 3,280 kr. being coined from 1000 grammes of *fine gold*.

In consequence of the War, the two countries separated under distinct Governments, and in both cases the currencies (and also the exchanges) became considerably depreciated. In 1925 Austria, with the assistance of the League of Nations, remodelled her currency on the basis of a new unit, the *schilling* of 100 groschen, which for purposes of conversion was made equal to 10,000 paper kronen of the old currency. By the Mint Regulations, 1 kilogramme of fine gold is coined into 4723·2 schillings. The 100-schilling piece thus contains 21·17 grammes of pure gold, and the mint parity with British currency is 34·58½ schillings per £1. New silver, nickel, and bronze tokens were issued, but some of the larger coins of the old currency still pass as legal tender at fixed equivalents to the new coinage.

Belgium (Centre quoted: *Brussels*).

1 belga = 5 francs = 500 centimes.

The currency of Belgium naturally depreciated considerably in value as a result of her participation in the War and of her close relationship with France. In October, 1926, steps were taken to remedy the position. A stabilisation loan was floated by the Belgian Government in London and New York, and the exchange was stabilised at the then prevailing rate of 175 Belgian francs per £1. For exchange purposes a new unit was introduced, known as the *belga*, but internal exchanges are still effected in terms of francs, five paper francs being taken as equivalent to one belga.

The belga is based on the equivalent of ·232456 gramme of gold, $\frac{9}{10}$ ths fine, or ·209211 gramme of fine gold, giving a mint par of 35 belgas per £1 or 7·19 belgas per American dollar. No gold coins are at present in circulation, but the subsidiary coinage consists of 5-, 10-, and 25-centime pieces of nickel-bronze. The sole rights of issuing paper money are vested in the hands of the Banque Nationale de Belgique, which is compelled to maintain a reserve of at least 30 per cent. in gold, and must redeem its notes in gold, in gold exchange, or in silver at its market value in terms of gold.

The gold exchange standard originally introduced on the stabilisation of the Belgian exchange has functioned so successfully that it has now been replaced by a gold bullion standard.

Bulgaria (Centre quoted: *Sofia*).

1 leva = 100 stotinki.

After several years of currency mismanagement and financial difficulty, Bulgaria appealed to the League of Nations for assistance

with her programme of reconstruction. In 1926 a Refugee Loan was raised under the auspices of the League, and in November, 1928, arrangements were finally made for the flotation of a Stabilisation Loan of £5,000,000 in London, New York, and Paris. The proceeds of the loan were to be used with the object of stabilising the leva at the new basis of 673·659 levas per £1, or 139 levas per dollar.

The National Bank of Bulgaria is empowered to issue notes of denomination not less than 200 levas, while token coins of silver and baser metal are being issued to replace notes of lower value.

Czecho-Slovakia (Centre quoted: *Prague*).

1 crown = 100 heller.

This post-war State adopted the same system as that of Austria-Hungary in pre-war days, so that until February, 1929, it had a mint parity with this country of 24·02 per £1. In consequence of inflation and financial difficulty, the currency depreciated considerably in value, and steps had to be taken to stabilise it on a new basis. Credits were arranged by the Czecho-Slovak National Bank with certain of the principal Central Banks abroad, and the crown was given a new equivalent of ·04458 gramme of fine gold. The mint parity with this country is now 164·25¼ cr. per £1, and with the United States 33·75 cr. per \$.

Dantzig. 1 florin or gulden = 100 pfennige.

The monetary unit of the Free City of Dantzig is the paper *gulden* of 100 pfennige. The currency is a "managed" one consisting mainly of notes of the Dantzig Bank of 10, 25, 100, 500, and 1,000 florins. Its value is stabilised on the basis of 25 Dantzig gulden to the pound sterling, the Dantzig Bank being required to exchange its notes, not for gold, but for cheques on London at the outgoing specie point of 25·21 fl. per £1. At the lower or incoming specie point of 24·89 fl. per £1 the Bank issues cheques on Dantzig to the Bank of England in exchange for pounds sterling, thus keeping the exchange within the two limits fixed by law.

The units are always referred to as the *Dantzig* florin or gulden and the *Dantzig* pfennige to avoid confusion with the Dutch florin or gulden and the German pfennige.

Esthonia (Centre quoted: *Reval* or *Tallin*).

1 kroon = 100 sents.

The new post-war Baltic State Esthonia first adopted a standard

unit known as the *mark*, having the same weight and fineness as the Swiss franc (i.e., the Latin standard). As a result of currency mismanagement much difficulty was experienced, and in January, 1928, the gold exchange standard was instituted based on the *kroon*. This was given the same metallic content as the Scandinavian standards, viz., .268 gramme of pure gold, so that the mint parity with this country is the same as that of Norway, Sweden, and Denmark, viz., 18.159 kroner per £1.

The new currency laws provided also for the issue of certain subsidiary coins of silver and nickel, while the notes of the Eesti Bank were established as the sole legal tender. The notes must be secured by a minimum reserve of 40 per cent. in gold or gold exchange, and their value in terms of gold is maintained by arrangements whereby the Bank must sell or buy gold exchange on demand at certain fixed rates.

Finland (Centre quoted: *Helsingfors*).

1 markka (Finnish mark = 100 penni).

In December, 1925, Finland devalued her monetary unit, the mark, which was instituted on the formation of the State after the War and established the convertibility into gold of the notes of the Bank of Finland on the basis of 1 new mark = $.03\frac{15}{19}$ gramme of pure gold. This gives a mint parity with this country of 193.23 Finnish marks per £1.

France (Centre quoted: *Paris*).

1 franc = 100 centimes.

France was the principal participant in the now defunct Latin Union, and from 1865 to the time of the Great War her currency was based on the gold *franc*, which had a mint parity with the sovereign of 25.2215 francs = £1. In addition the silver five-franc piece, 900 fine, circulated as legal tender at the fixed rate of $15\frac{1}{2}$ silver francs = 1 gold franc, France thus having a dual or bimetallic standard. When silver was cheap the five-franc pieces were worth more in all markets as currency than they were worth as silver bullion, and as a consequence the system really broke down, being consequently described as the *étalon boiteux*, or "limping standard."

During the Great War vast quantities of inconvertible notes were issued by the Bank of France, and by the Chambers of Commerce in the principal towns, with the result that the currency became very heavily depreciated. The inflation was continued after the War, until in July, 1926, the franc had a value in the foreign exchange market

of only 250 to the £1, although there was evidence that this rate was considerably below the true value of the currency.

In December, 1926, a new Government undertook the reorganisation of the financial and currency position, and as a result the Paris rate on London was stabilised from March, 1927, to June, 1928, at 124 francs per £1, and, in the latter month, stabilisation *de facto* became stabilisation *de jure* when the currency was devalued and a gold bullion standard established.

The franc has now a nominal gold content of 65·5 milligrammes, $\frac{9}{10}$ ths fine, or 58·95 milligrammes fine, giving a mint par with Great Britain of 124·2134 francs per £1. One hundred-franc gold pieces are to be minted, and are constituted legal tender for any amount, but it is unlikely that these coins will circulate to any extent. Provision has been made for the issue of 5- and 10-franc silver pieces to replace the notes of lower denomination, and also for smaller token coins of aluminium-bronze, nickel and bronze. All gold and silver coins existing before the new currency law are no longer legal tender.

The Bank of France, which has the sole right of note issue, is required to redeem its notes in gold on demand in minimum quantities agreed from time to time between the Minister of Finance and the Bank. The effect is that gold is available for export in quantity, but will not for the present be issued for internal use. The Bank is compelled to maintain a gold reserve of not less than 35 per cent. of its liabilities against notes and current accounts, the laws under which it was previously allowed a certain maximum circulation being now repealed.

Germany (Centre quoted: *Berlin*).

1 reichsmark = 100 pfennige.

The gold standard was adopted in 1871, and gold coins of 10 and 20 marks were issued, all 900 fine. As a result of the War, however, Germany was compelled to depart from the gold standard, and, in consequence of vast issues of inconvertible paper, her currency became valueless and her exchange purely nominal. The reorganisation of the currency has proceeded by two stages. In the first place *rentenmark* notes were issued and made current at the rate of 1 *rentenmark* = 1 billion marks of the pre-war currency. The *rentenmark* is now replaced by the *reichsmark* (= 100 pfennige) of equal value. Notes of various denominations in this new currency have been issued, together with a new coinage of silver and aluminium bronze, all other coins previously issued having been demonetised.

The mint regulations provide that one kilogramme of fine gold is to be coined into $139\frac{1}{2}$ 20-reichsmark pieces, or into 279 10-reichsmark pieces, all 900 or $\frac{9}{10}$ ths fine.

Greece (Centre quoted: *Athens*).

1 drachmae = 100 lepta.

Until 1928 the monetary system of Greece was based on the bi-metallic standard adopted by the Latin Union, but in May of that year, after a long period of inflation and depreciation, the currency was stabilised at the ruling rate of 375 per £1, or 51212·87 drachmae per 1,000 grammes of fine gold.

Holland (Centre quoted: *Amsterdam*).

1 florin or gulden = (19·82 pence) = 100 cents.

1 florin or gulden = 20 stivers.

Prior to 1872 the standard was silver, but, owing to the rapid fall in this metal, the coinage of silver was temporarily suspended, and gold was coined conjointly with the legal currency of silver.

The standard coin is the 10-florin piece, weight 6·720 grams, 900 fine, containing 6·048 grams of fine gold. The currency in Holland is therefore the gold standard, with the former silver coins as limited legal tender.

During the Great War, practically no gold coins were in circulation in Holland, the currency consisting of paper money of various denomination, together with the silver coins and small tokens of nickel and bronze. In consequence of her neutrality during the Great War, however, and her favourable position as a link between Continental countries and the rest of the world, Holland benefited considerably and absorbed more gold than she desired.

To avoid the accumulation of an excessively large gold supply the Netherlands Bank, in November, 1927, surprised the world by reducing its buying price for gold and by announcing its intention to put gold coins into circulation through the issue of gold in exchange for its notes. But the people of Holland, like those of other countries, are now so accustomed to the handling and convenience of paper money, that it is doubtful whether they will use gold currency to any great extent, even if they can get it without difficulty.

Hungary (Centre quoted: *Budapest*).

1 pengö = 100 filler or garas.

On her severance from Austria after the Great War, Hungary

found herself with a currency which was severely depreciated in consequence of the excessive issue of inconvertible paper. The paper *corona* was stabilised for some time at the rate of 346,000 per £1, but in November, 1925, a new unit was introduced known as the *pengo*, equal to 12,500 coronas.

Under the terms of the new Currency Act, 3,800 pengö are to be coined from one kilogramme of fine gold, so that the present mint par of exchange with sterling is 27·825 pengö per £1. Gold coins are not, however, likely to be placed in circulation, the metallic currency in use consisting of token coins of silver, nickel, and bronze.

The National Bank of Hungary has now the sole right to issue paper currency, and is charged with maintaining the stability of the monetary unit on the basis of a *gold exchange standard*. Thus the Bank must buy and sell such foreign currency as is necessary to keep the exchange within the two theoretical gold points between Hungary and other gold standard countries, and is compelled to buy gold bullion at the mint price of 3,800 pengö per kilogramme of fine gold, less six pengö minting charges, i.e., at 3,794 pengö per kilogramme.

Iceland (Centre quoted: *Reykjavik*).

1 krona (pl. *kronur*) = 100 aurar (sing. *eyrir*).

Prior to 1929, Iceland was a member of the Scandinavian Monetary Union, her currency having a mint parity with sterling of 18·159 kronur per £1. During and after the War, the krona was subject to wide fluctuations, but from December, 1925, until the end of 1928 its value was stabilised as 22·15 kronur per £1. At the time of writing (March, 1929) proposals are being considered for the revalorisation of the krona at this rate of 22·15, and if these proposals are carried out Iceland will cease to be a member of the Scandinavian Monetary Union.

Irish Free State (Centre: *Dublin*).

Up to the end of 1928 the circulating media of the Irish Free State consisted of British coins, Treasury notes, and Irish Bank notes issued by the various Irish banks under the Bank Charter (Ireland) Act, 1845. As from the beginning of 1929 the circulating media were replaced by new Irish token currency authorised by the Irish Coinage Act, 1926, and by notes issued under the provisions of the Irish Currency Act, 1927. The token coinage consists of silver coins, 750 fine, of 2s. 6d., 2s., and 1s.; nickel coins of 6d. and 3d., and bronze coins of 1d., $\frac{1}{2}$ d., and $\frac{1}{4}$ d.

The notes in circulation are of two classes:—

- (1) **LEGAL TENDER NOTES**, issued by the Irish Currency Commission to the banks against the deposit of gold, British currency, British Government securities, or sight drafts on London. The notes are redeemable in sterling on demand if presented by bankers at the London agency of the Commission.
- (2) **CONSOLIDATED BANK NOTES**, issued by recognised banks, and obtained by them from the Currency Commission against the deposit of cash or against the security of trade bills or acceptable evidence of advances granted by the banks. These notes are convertible into legal tender at the Head Office of the issuing banks.

The free convertibility of Irish currency into sterling forms the basis of the *sterling exchange standard* which has been adopted as a means of ensuring that no exchange difficulties shall disturb the trade relationships between the two countries.

Italy (Centre quoted: *Milan*).

1 lira = 100 centesimi.

On the establishment of the Latin Union, Italy based her currency on the *lira*, which, like the Swiss franc and the old French franc, had a parity with British currency of 25·2215 francs per £1. In common with other European countries, Italy entered during the Great War on a period of violent inflation, and excessive issues of inconvertible notes sent down the value of the lira to about $\frac{1}{6}$ th of its pre-war value. After a period of great fluctuation, stabilisation was achieved in December, 1927, and a *gold exchange standard* was adopted based on the *paper lira*. This was devalued on the basis of 7·919053 grammes of fine gold per 100 paper lire, giving a new parity with Great Britain of 92·46 lire per £1 and 19 paper lire per American dollar.

The metallic currency now consists of silver lire pieces of 20, 10, and 5 lire, together with nickel and bronze tokens of lower denomination. The sole right of issuing paper currency is vested in the Banca d'Italia, which is compelled to hold reserves in gold or gold exchange of not less than 40 % of its notes outstanding and sight liabilities, subject, however, to the power to lower the percentage reserve in emergency on payment of a graduated tax.

Lithuania (Centre quoted: *Kaunas Kovno*).

1 litas (Engl *lit.*) = 100 cents.

The new monetary unit of Lithuania, termed the *litas*, is equivalent

to $\frac{1}{10}$ th of a gold U.S. dollar. It therefore contains ·150462 gramme of pure gold, and has a par with Britain of 48·665 lits per £1. Coins of silver and nickel are also issued, together with notes of the Bank of Lithuania for various amounts.

Poland (Centre quoted: *Warsaw*).

1 zloty = 100 grosz.

The depreciation of the Polish mark by constant inflation during and after the War resulted, in 1923, in the introduction of a new currency unit known as the *zloty*, having a mint parity with the sovereign of 25·2215 per £1, as in the case of the currencies of the old Latin Union. As a result of further mismanagement, however, the currency again collapsed and strenuous efforts became necessary to improve the position. By rigid adherence to sound monetary policy and balanced budgets the currency was stabilised for some time at the rate of 43·38 zlotys per pound sterling. Later, in October, 1927, a gold exchange standard was instituted based on a unit devalued to the rate of 1·67177 milligrammes of fine gold per zloty, or 5,332 zlotys per kilogramme of gold, 900 fine. This gives a mint parity with this country of 43·38 zlotys per pound, and with the United States of •8·9141 zlotys per dollar.

Gold coins of 25, 50, and 100 zlotys are to be issued by the mint as soon as conditions permit, while subsidiary coins of silver, nickel, and copper are in circulation. The notes of the Bank of Poland are now the only legal tender paper currency, and these are redeemable on demand either in gold or gold exchange. The total note issue must be backed by a reserve in gold or gold exchange of not less than 40 %, but not less than 30 % must be in actual gold.

Portugal (Centre quoted: *Lisbon*).

1 milreis (old) = 1,000 reis.

1 escudo (new) = 100 centavos.

1 milreis (old) = 1 escudo (new).

The single gold standard was adopted by Portugal in 1855, the gold crown of 10 milreis being coined from 17·735 grammes of gold, 916 $\frac{2}{3}$ fine. The currency has been changed of late years in accordance with the above table, the monetary unit now being the *escudo* of 100 centavos. At present gold is not in general circulation, although gold coins of 1, 2, 5, and 10 escudos are provided for and British sovereigns are legal tender.

The circulating currency consists mainly of the inconvertible notes

of the Bank of Portugal, together with various smaller tokens of nickel and copper.

One result of the great depreciation of the escudo in recent years—in 1924, its value fell to 155.54 escudos per £1—is that the rate of exchange is now quoted in terms of *escudos to the* £1 instead of pence per escudo, as formerly, the mint par under the new method being $4.50\frac{1}{2}$ escudos per £1.

Rumania (Centre quoted: Bukarest).

1 leu = 100 bani.

As in the case of the other participants in the Great War, the economic development of Rumania has in recent years been greatly hindered by the depreciation and continual fluctuation of her currency. For some time progress towards reconstruction was prevented by the short-sighted policy of the Rumanian Government, which placed obstacles in the way of the inflow of foreign capital. On a change of Government this policy was reversed, and arrangements were made—with the assistance of the League of Nations—to raise a reconstruction loan of over £20,000,000 distributed in ten of the principal countries. As part of the scheme of reconstruction, the leu was stabilised in February, 1929, on the new gold value of 10 milligrammes, $\frac{9}{10}$ ths fine, giving a new mint parity with this country of 813.6 lei per £1.

Bank notes are being issued in denominations of 100, 500, 1,000 and 5,000 lei, while subsidiary coins composed of an alloy of nickel and aluminium will be issued for amounts of 1, 2, 5, 10 and 20 lei, to a total not exceeding three milliards of lei.

The system adopted is the gold exchange standard, and the notes of the National Bank of Rumania in amounts of not less than 100,000 lei will in future be convertible at the Bank's option, either into gold or foreign gold exchange, allowance being made in the latter case for the equivalent of the cost of shipping gold. Out of 255 millions of gold lei held by the National Bank, over 98 millions are held in London and Paris. A further 315 million gold lei (about £12 $\frac{1}{2}$ millions) are said to be held by the Bank on deposit in Moscow, but the ultimate repatriation of this gold seems doubtful at present, as the matter is bound up with political differences between Rumania and Russia.

Russia (Centre quoted: *Moscow*).

1 tchervonetz = 10 roubles = 1,000 kopecks.

Prior to the Great War, the currency of Russia was based on the gold rouble of 100 kopecks, the exchange with this country being

quoted in terms of 10 roubles per £. As a result of the War and of the great political and social disorders in the country, the currency has been utterly disorganised and depreciated, various issues having been made by the successive Governments. All such issues are now worthless, and in 1924 the currency was stabilised on a gold basis, the new unit being the *tchervonetz*, equivalent to 10 roubles and theoretically containing 119·4826 grains of pure gold. The currency now consists of *tchervonetz* and rouble notes of various denomination, together with silver and copper coins of lower values.

The silver currency tends, however, to disappear from circulation as soon as it is issued, since the masses show an increasing distrust of the paper money, and are at great pains to hoard any silver coins which come into their possession.

The rate is quoted in Moscow in terms of *tchervonetz* per £1,000 or \$1,000, but rates on Moscow are now quoted in London in *roubles* per £1 (Par: Rbls. 9·458 per £1).

Turkey (Centre quoted: *Constantinople*).

1 piastre (or 40 paras) = 100 aspres.

1 lira or pound (or gold medjidre) = 100 piastres.

Gold coins are $\frac{1}{4}$, $\frac{1}{2}$, 1 lira. Various silver coins were issued, but, although the standard is nominally gold, neither gold nor silver has been coined for some time, and the currency consists chiefly of inconvertible paper. Formerly almost every European nation had its own currency in use, at a certain fixed ratio to the Turkish standard coin. Thus the English sovereign passed at 125 piastres and the French Napoleon at 100, but in consequence of the depreciation of the currency gold is now at a premium and out of circulation, although base silver coins of various currencies are still being used.

In 1928, all the dilapidated paper in use was withdrawn and new notes printed in England were put into circulation.

AFRICA

Egypt (Centre quoted: *Alexandria*).

The currency system and units are similar to those of the Sudan, which have already been given. Before the War, English, French, German, and Turkish gold coins were current at fixed equivalents, the English sovereign passing at $97\frac{1}{2}$ piastres, as in the case of the Sudan. Now, however, only Egyptian currency is legal tender, notes of various denominations being issued by the State and by the National Bank of

Egypt. English notes are accepted generally at a small discount on the equivalent of $97\frac{1}{2}$ piastres per £.

Morocco (Centre quoted: *Fez*).

French zone: 1 franc = 100 centimes.

Spanish zone: 1 peseta = 100 centimes.

1 rial = 20 biliuns.

Towards the end of 1928, an agreement was concluded between the Banque d'Etat du Maroc (i.e., French Morocco) and the French Treasury, reaffirming the principle of monetary union between the two countries. Under the agreement the Banque d'Etat will buy or sell exchange when necessary with the object of maintaining the Moroccan franc at par with the French franc. The notes of the Banque d'Etat are inconvertible, but silver coins of 10 f. and 20 f. are being issued in the Hinterland, where paper currency is viewed with disfavour.

In Spanish Morocco the legal tender currency consists of Spanish peseta notes and coins, together with silver dollars known as "*hassani*", issued by native Moorish rulers.

AMERICA

Argentina (Centre quoted: *Buenos Aires*).

44 cents gold = 1 paper peso = 100 centavos.

For many years the Argentine has suffered from the existence of an inconvertible paper currency, the value of which has frequently depreciated considerably. During the War, however, the country prospered exceedingly and steps were taken by the Government to place the currency on a better basis.

Prior to June, 1925, the export of bullion was forbidden. In that month the export of gold held outside the Conversion Office was permitted. By March, 1927, the peso (or dollar) had risen to its pre-war parity with sterling, and in subsequent months considerable quantities of gold were imported from London and South Africa. In August, 1927, the return to the gold standard and to convertibility of the paper currency were announced, a gold bullion standard being adopted based on a gold peso having a mint parity of about $47\frac{3}{4}$ pence.

While exchange quotations are made in terms of the *gold* peso, the currency in actual use is based on the *paper* peso, the value of which in relation to the gold unit is fixed at 44 %, i.e., \$44 gold = \$100 paper. The paper currency is exchangeable into gold for export at

the Conversion Office at this rate, but although a gold coin of 5 pesos, known as the *argentino*, is in existence, gold is not issued for internal circulation. Silver, nickel, and copper coins are also issued; the silver peso weighs 27·11 grammes, 900 fine.

The letters M/L (*moneda legale*) or M/N (*moneda nacional*) after an amount indicate that it is in *paper pesos*.

Bolivia (Centre quoted: *La Paz*).

1 boliviano = 100 centavos.

Acting on the recommendation of Professor Kemmerer, who has taken a very prominent part in the formulation of schemes for the stabilisation of South American currencies, Bolivia towards the end of 1928 thoroughly reorganised her currency and financial position. The Banco de la Nacion Boliviana was reconstituted as the central bank of issue, and the value of the monetary unit, the *boliviano*, was fixed at ·54917 gramme of fine gold, giving a mint parity with sterling of 18d. per boliviano.

Silver coins, 900 fine, of various denominations, are in circulation, together with nickel coins and the convertible paper notes of the National Bank for 5 bolivianos and upwards.

Brazil (Centre quoted: *Rio de Janeiro*).

1 milreis = 1,000 reis.

Although nominally on a gold standard (1 gold milreis = 27d.), Brazil has long suffered from the ill-effects of a depreciated inconvertible currency. By the law of 1910 the par value of the *paper* milreis was fixed at 16d., but the exchange has fluctuated considerably.

Considerable difficulty has arisen from the fact that two distinct types of notes are in circulation: notes convertible into gold on demand issued in exchange for gold by the "Caixa de Estabilisacao," and inconvertible notes issued by the Treasury and the Banco do Brazil. The former tend to be "cornered" and exchanged for gold by persons who prefer the metal to notes, with the result that *bona fide* gold depositors have considerable difficulty in obtaining the return of their gold if they once part with their gold notes. The obvious remedy is to make all existing paper currency convertible on an equal basis, as is, in fact, now being done.

A new law now provides for the stabilisation of the currency on the basis of a new unit, the *cruzeiro* of 100 cents, weighing 800 milligrammes, 900 fine. All existing paper money will be converted into the new currency at the rate of 1 cruzeiro = 4 paper milreis, and

into gold at the rate of $\cdot 200$ milligramme gold, 900 fine, per *paper* milreis.

The new unit is to be introduced after a date of which six months' notice is to be given, and a Stabilisation Board has been formed with agents in London and New York, charged with the task of co-operating with the Central Bank, the Banco do Brazil, to maintain the exchange at the new parity of 5·899 pence per cruzeiro by the purchase and sale of exchange and the receipt of gold at the fixed rate. But, although a successful stabilisation loan has been raised and although the exchange has been maintained for some time approximately at the new parity, no notice of the institution of the new currency unit has yet been given.

The method of quoting large sums in Brazilian currency is peculiar, the amounts being always expressed as so many "contos of reis". A "conto" is 1,000,000 reis or 1,000 milreis (i.e., thousand reis), and is written 1:000 \$000. Thus Rs. 69,304:350 \$500 is equivalent to Rs. 69,304,350,500, or milreis 69,304,350·5.

Chile (Centre quoted: *Valparaiso*).

1 peso = 100 centavos.

The monetary unit is the gold peso, and gold coins of 5, 10, and 20 pesos are coined. The currency has long consisted principally of inconvertible paper, but as from January 11, 1926, it was devalued and stabilised on the basis of the twenty-peso gold piece of 4·06793 grammes, $\frac{9}{10}$ ths fine, giving a mint par with London of 40 pesos = £1.

Ecuador (Centre quoted: *Guayaquil*).

1 sucre = 100 centavos.

After many years of depreciation the currency of Ecuador was reorganised in 1927, when, on the recommendation of the Kemmerer Commission, the monetary unit was devalued and based on the American dollar at the rate of 5 sucres per dollar. The sucre has now a nominal gold content of $\cdot 300933$ gramme fine and the mint parity with sterling is $24\frac{1}{2}$ sucres per £1 in place of the old parity of 10 sucres per £1. The circulating paper currency has been made convertible into gold on demand, and a new Central Reserve Bank has been established on lines somewhat similar to those of the American Federal Reserve system.

Mexico (Centre quoted: *Mexico City*).

1 dollar or peso = 100 centavos.

The nominal standard is a gold one, and gold coins of 20, 10, and

5 pesos are coined, and also the doblon (16 pesos) and $\frac{1}{2}$ and $\frac{1}{4}$ doblon. The actual currency is, however, chiefly silver, the Mexican dollar, or peso, being the principal coin. This coin also circulates very freely in the East, its sterling value fluctuating with the gold price of silver.

The currency is stabilised at the time of writing on the basis of 9.76 dollars per £1.

Peru (Centre quoted: *Lima*).

£P1 = 1,000 centavos.

(See the note re “£P” under Palestine.)

The Peruvian pound or libra is exactly equivalent to the English pound sterling, and the exchange is quoted *from Lima* at a premium or discount per cent. for 90 days' sterling sight drafts on London.

The circulating currency consists chiefly of notes issued by the Reserve Bank of Peru against rediscount of commercial bills, subject to the maintenance of a 50 % reserve of gold. In spite of the maintenance of a relatively high backing of gold, the notes have not, so far, been made convertible. Psychological factors, and the state of public confidence, have thus been able to exercise their full influence on the value of the currency, which has consequently fluctuated considerably from time to time. At the end of 1926, the premium on sterling in Peru was as high as 35 %, while a year later it was still in the neighbourhood of 30 %. Happily, conditions are now improving and plans are being made for the stabilisation of the currency at a value somewhat lower than the old parities with sterling and the dollar.

San Salvador (Centre quoted: *San Salvador*).

1 colon = 100 centavos.

Prior to 1920, the republic of San Salvador had a paper currency issued under a law of 1900, which provided for a minimum reserve of 50 % in gold and silver. In 1920, the Republic finally adopted the gold standard, basing its new currency on the *colon* or *peso* of 100 centavos, containing .836 gramme of gold, 900 fine, giving a par of 9.73 colones per £1, and 2 colones per United States dollar.

The currency now consists of gold, silver, and nickel coins, together with notes of the three native banks of issue, which must maintain a minimum metallic backing of 40 %, and secure the remainder of their issues with securities approved by the Government. In addition to the national currency, the gold and silver coins of the United States are legal currency and pass for all purposes.

United States (Centre quoted: *New York*).

1 dollar = 100 cents.

The monetary unit is the gold dollar. Coins of 1, $2\frac{1}{2}$, 5, 10, and 20 dollars are issued, the eagle of 10 dollars weighing 258 grains troy, 900 fine. Various other coins of nickel and silver are in circulation, and also many forms of Government and bank paper money. The chief silver coin is the dollar of 412.5 grains troy, at one time sole legal tender, but its value for exchange purposes varies with the price of silver.

ASIA

China (Centres quoted: *Shanghai and Hong Kong*).

1 candareen = 10 cash or li.

1 mace = 10 candareen.

1 tael = 10 mace.

These are the moneys of account, but the only coin widely used by the masses is the brass *cash* or *li*, the market value of which is fixed by the people themselves, although silver dollars in great variety are in circulation in various parts of the country. The cash is made of an alloy of copper, iron, and tin, and although nominally 1,000 cash = 1 tael (of silver), the latter is worth anything from 1,000 to 1,800 cash.

The currency position is one of the greatest confusion, and is briefly explained in Chapter XIII, to which reference should be made for further details.

French Indo-China. 1 piastre = 100 cents.

French Indo-China is one of the few countries which still adhere to a purely silver currency, and one which is likely to continue to do so for some time to come owing to the conservatism of the native population.

The monetary unit is the silver *piastre* of 27 grammes, 900 fine, submultiples of which are in circulation, together with tokens of bronze and nickel. In addition to the coinage, there is in circulation a considerable quantity of notes issued by the Banque de l'Indo-Chine, the sole bank of issue. These notes are not legal tender and constitute a curious anomaly in that their face value is expressed in *francs*, whereas they are payable on demand in *silver piastres*.

At the time of writing there is much discussion both in France

and in Indo-China concerning the advantages and practicability of instituting the gold exchange standard in the colony, the opinion being widely held that France should provide this vast territory with an internationally recognised monetary unit in the same manner as Britain did in India. Previous attempts to organise the currency on a better footing have failed for various reasons, but the necessary incentive is now provided by the fact that the franc is definitely stabilised on a gold basis. On the other hand, it is maintained in some quarters that, in view of the close trading relations between Indo-China and China, the Indo-Chinese currency should not be reorganised until China has achieved her currency reform.

Japan (Centre quoted: *Kobe*).

1 sen = 10 rin.

1 yen = 100 sen.

From 1871 onwards the legal money has been the silver yen of 100 sen, weighing 416 grains troy, 900 fine, and is on a par with the Mexican dollar, which, however, has a larger circulation. In 1897 the gold standard was adopted, the gold yen being coined in the proportion of gold to silver of 1 : 16·17, coins of 5, 10, and 20 yen being issued. Notes of various denominations are issued, together with subsidiary coins of silver, nickel, and bronze.

Java (Centre quoted: *Batavia*).

1 florin or guilder = 100 cents.

The monetary unit of Java (Netherlands East Indies) is the florin or guilder of 100 cents, of the same value as the Dutch florin, with which the Javanese currency is linked on the gold exchange standard, operated between Batavia and Amsterdam. Notes of various denomination, together with coins of gold, silver, nickel, and bronze, are in circulation.

Palestine.

£P1 = 1,000 mils.

Prior to 1929 the principal circulating medium of Palestine consisted of Egyptian currency, introduced mainly by British forces operating in that country during the War. This currency was made legal tender in February, 1921, but it had the disadvantage that neither the British Government—the Mandatory Power—nor the Palestine Government had any control over it.

Accordingly, in November, 1927, a new currency was introduced,

based on the *Palestine pound*, having the same gold value as the British pound sterling and being divisible for the convenience of the people into relatively small units—1,000 *mils*. Coins are now issued of varying face value in bronze, nickel-bronze, and silver, together with Government notes of 500 mils, £P1, £P10, £P50 and £P100. The currency will be maintained on the *sterling exchange standard* by arrangements which provide for its exchange pound for pound into and for British currency in London.

Most unfortunately, it would appear that the same notation “£P” is being used for the currency unit of Palestine as for that of Peru, and it is to be hoped that some method of distinguishing the two currencies on paper will shortly be devised.

Syria (Centres *Damascus* and *Aleppo*).

1 Syrian pound = 492 piastres.

Between 1920 and 1926 the currency of the Protectorate of Syria was based on the gold pound, but in the latter year this unit was abolished in favour of a new gold unit of account known as the piastre. As from September 1, 1928, the pound was re-established as legal tender and now exchanges with the existing currency at the rate of 492 paper piastres.

EXCHANGES FROM ONE CURRENCY TO ANOTHER.

The calculations involved in making exchanges from one currency to another are quite simple, but short methods should be used wherever possible, as results are usually sufficiently correct to two or three places. Two methods can generally be used: (a) Practice, or (b) Decimals.

Example 1.—Given £1 = Fcs. 125·10, exchange £126 18s. 9d. into francs.

(a) By practice:—

100	12510
20	2502
7	875·7
	<hr/> 15887·7

1s. 3d. = $\frac{1}{16}$ of £ =	7·819
	<hr/> 15879·881

(b) By decimals:—

126·9375
125·1
<hr/> 12·694
634·688
2538·750
12693·75
<hr/> 15879·882

Answer to 2 places = Fcs. 15879·88.

Example 2.—Given Fcs. 124·75 = £, exchange Fcs. 9876·85 to £ s. d.

$$\begin{array}{r} \frac{£9876 \cdot 85}{124 \cdot 75} = \frac{1975 \cdot 37}{24 \cdot 95} \\ \hline 79 \cdot 173 \\ 2495 \overline{)197537} \\ \underline{22887} \\ 4320 \\ \underline{18250} \\ 785 \end{array}$$

Answer = £79 3s. 6d.

Example 3.—Express £10 17s. 9d. in marks, 1 mark = 11½d.

(a) By decimals:—

$$\begin{aligned} £10 \ 17s. \ 9d. &= 10 \cdot 8875 \times 240 \text{ pence} \\ \therefore \text{No. of marks} &= \frac{10 \cdot 8875 \times 240 \times 4}{47} \\ &= \frac{10452}{47} \end{aligned}$$

Answer = Mks. 222·38.

(b) By the Chain Rule.—

How many marks = £10·8875
when £1 = 240 pence
when 11½d. = 1 mark?

$$\frac{10 \cdot 8875 \times 240}{11 \cdot 75} = \frac{435 \cdot 5 \times 24}{47} = \frac{10452}{47}$$

Answer = 222·38 marks.

Example 4.—How many rupees would be obtained for £578, exchange at 1s. 6½d. per rupee?

$$\frac{578 \times 240}{18 \cdot 5} = \frac{578 \times 48}{3 \cdot 7} = \frac{27744}{3 \cdot 7}$$

Answer = 7498 rupees 6 annas.

Exchange Tables.—In business houses where exchange transactions are frequent, tables of multiples are constructed for converting from one currency into another at various rates of exchange. By this means much time and trouble in calculating is saved, and

as in normal times rates of exchange fluctuate only within narrow limits, it is not difficult to construct tables covering all the rates required. From these tables the values in another currency of a given amount of money can be written down without calculation.

(1) *Exchange from Sterling*.—Given £1 = 20·52 marks, construct a table for converting any sum from £ s. d. into marks, and write down the value of (1) £196 10s. 7d. and (2) £27 4s. 0d.

Method.—It will be clear after a little thought that if the values in marks, of 1–9 pounds, shillings, and pence are obtained to a sufficient number of places in each case, any sum of £ s. d. can easily be converted.

No.	£	s.	d
1	20·52	1·026	·0855
2	41·04	2·052	·1710
3	61·56	3·078	·2565
4	82·08	4·104	·3420
5	102·60	5·130	·4275
6	123·12	6·156	·5130
7	143·64	7·182	·5985
8	164·16	8·208	·6840
9	184·68	9·234	·7695

The £ column is obtained by multiplying 20·52 by 1, 2, 3, etc., respectively.

The shillings column is for each value $\frac{1}{20}$ th of the corresponding value for £1, and the pence column is $\frac{1}{12}$ th of the shillings column.

(1) £196 10s. 7d.

$$\begin{array}{rcl}
 & £200 = & \text{Mks. } 4104 \\
 \text{, Deduct } £3 = & 61·56 & \\
 & 9\text{s.} = & 9·234 \\
 & 5\text{d.} = & \cdot 4275 \quad 71·2215 \\
 \hline
 £196 \text{ } 10\text{s. } 7\text{d.} = & & \text{Mks. } 4032·7785 \text{ Answer.}
 \end{array}$$

(2) £27 4s. 0d.

$$\begin{array}{rcl}
 £20 = & 410·4 & \\
 £7 = & 143·64 & \\
 4\text{s.} = & 4·104 & \\
 \hline
 \text{Answer: Mks. } & 558·144 &
 \end{array}$$

If the tables are to be used for large amounts, the value of marks in £ must be given to several places of decimals, and the values in each case likewise extended, but the application of the principle is the same. The example just considered is taken from an examination paper, but it will be evident that it cannot be accurately used for amounts of more than two figures, and even then the values of £

can only be obtained to two places, whereas those for pence can be taken to four.

(2) *Exchange into Sterling*.—The construction of tables for conversion of currency into sterling is usually a simple matter, as only one column of values is necessary, giving the equivalents in decimals of £1 of 1–9 units of the foreign currency. The reason for this is that most foreign currencies are expressed in decimals, but as the £ is a large unit, the values should, in practice, extend to several decimal places.

Two cases arise:—

- (1) Sterling rates—when quotations are expressed in English money per foreign unit, e.g., Argentine, 1 peso = 47·5783.
- (2) Foreign rates—when quotations are in foreign money per £, e.g., Germany, 20·38½ marks = £1.

(1) *Sterling Rate*.

Construct a table as follows.—

Pesos.	£
1	·198243
2	·396486
3	·594729
4	·792972
5	·991215
6	1·189458
7	1·387701
8	1·585944
9	1·784187

Example: Cost of 8321·45 pesos?

$$\begin{array}{r}
 8000 = 1585\cdot944 \\
 300 = \quad 59\cdot4729 \\
 21 = \quad 4\cdot1631 \\
 \cdot45 = \quad \cdot0892 \\
 \hline
 1649\cdot6692
 \end{array}$$

Answer = £1649 13s. 5d.

(2) *Foreign Rate*.

$$\begin{array}{l}
 \text{Mks. } 20\cdot38\frac{1}{2} = \text{£1} \\
 \therefore 1 \text{ mark} = \text{£}\cdot0490556782
 \end{array}$$

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Construct a table to six places.

Marks.	£.	
1	·049056	2'0'3'8'5)100000(·0490556782
2	·098111	<u>184600</u>
3	·147167	<u>113500</u>
4	·196223	<u>115750</u>
5	·245278	<u>13825</u>
6	·294334	<u>1594</u>
7	·343390	<u>167</u>
8	·392445	<u>4</u>
9	·441501	

$$\text{Mks. } 1 = \text{£} \cdot 049055'6782$$

Example : Cost of Mks. 7308·96 ?

7000	343·390
300	14·7167
8	·3924
·9	·0442
·06	·0029
<u>7308·96</u>	<u>£358·546</u>

$$\text{Answer} = \text{£}358 \text{ } 10\text{s. } 11\text{d.}$$

CHAPTER XX

THE CHAIN RULE—CALCULATION OF THE MINT PAR AND THE SPECIE POINTS

The Chain Rule.—In working Example 3 (*b*) on page 479, reference was made to the Chain Rule. This is a method widely used in exchange calculations for determining the relationship between two quantities, whose values measured in terms of other fixed related quantities are known or can be found. In the example referred to we were given that $11\frac{3}{4}$ pence = 1 mark, and knowing that 240 pence = £1, we were enabled to determine how many marks were equivalent to a given sum of English money. The principle can be applied to the solution of problems much more involved than this, where a number of related quantities have to be considered before the unknown relationship between two other quantities can be determined.

The method consists in arranging in two columns the quantities whose relationship is known, as in the following example :—

Example 1.

How many francs = £1
if £1 = 20·60 marks,
42 marks = 24 florins
and 100 florins = 1,055 francs ?

This is a simple question arranged with the quantities in two columns, so that the last three equations are statements of known relationships between quantities, and the first equation represents the answer required. It is most important for a correct solution by this method, that the first quantity in each equation should be of the same denomination as the last quantity in the preceding equation, and that the last and first quantities should be of the same kind. These quantities of like denomination are said to be “linked”; the answer required is the “missing link” in the chain, and may come first or last, provided the correct sequence is maintained.

The answer is obtained by dividing the product of the numbers on the right by the product of those on the left, as follows:

$$\frac{20 \cdot 60 \times 24 \times 1055}{42 \times 100}$$

Answer: 124·19 francs.

Innumerable examples can be solved by this method, but great care must be taken to arrange the quantities in correct sequence. In practice, the chain is expressed in as short a way as possible, and that in the last example would be written as follows:

$$? \text{ Fcs.} = \text{£}1,$$

$$\text{£}1 = 20 \cdot 60 \text{ mks.},$$

$$\text{Mks. } 42 = 24 \text{ fl.},$$

$$\text{Fl. } 100 = 1055 \text{ fcs.}$$

Answer: 124·19 francs.

Calculation of the Mint Pars of Exchange.—It is of great importance that the student of foreign exchange should know how to determine the values of the Mint Pars between the principal centres of the world, and for this reason the most important are worked in full below. As is usual, the Chain Rule method is applied, the data being obtained from the Mint Regulations given in Chapter XIX. The calculations are in no case taken further than the fourth place of decimals. This approximation is sufficiently accurate for most purposes, and is ordinarily used in foreign exchange lists of quotations, but the reader should not overlook the fact that, in certain circumstances, many more places may be required.

1. **Switzerland** (and all countries on *Latin Standard*).

First Method.—Simple proportion:

1 sovereign contains 7·98805 grammes of standard gold.

$$\therefore 1 \quad \quad \quad \quad \quad \frac{7 \cdot 98805 \times 11}{12} \text{ grammes of pure gold.}$$

1 franc contains $\frac{900}{155 \times 20}$ grammes of pure gold

$$\begin{aligned} \therefore 1 \text{ sovereign} &= \frac{7 \cdot 98805 \times 11}{12} \div \frac{900}{3100} \text{ francs} \\ &= \frac{7 \cdot 98805 \times 341}{108} \end{aligned}$$

$$\begin{array}{r}
7\cdot98805 \\
\underline{143} \\
2396\cdot415 \\
319\cdot522 \\
7\cdot988 \\
\hline
10'8)2723\cdot925(25\cdot2215 \\
\underline{563} \\
23\cdot9 \\
\underline{2\cdot32} \\
16 \\
\underline{5}
\end{array}$$

Mint Par = 25·2215 francs per £.

Note : Four places are required in answer, and by inspection number of integers is two, therefore number of digits in answer is six. We must accordingly have seven digits in the product, and by inspection four of these are integers, therefore work *correct* to two places in the multiplication (i e., work approximately to three).

By examining the working here given, the reader will observe that the mint par between any two gold currencies can be determined with great ease if the weight of *pure* gold in each of the currency units is known *in terms of the same standards of weight*. All that is then necessary is *to divide the greater weight by the less*, and the answer obtained is the mint par of exchange. Thus :

1 sovereign contains 7·322381 grammes of *pure* gold.

1 Swiss franc contains ·290323 grammes of *pure* gold.

$$\therefore \text{Mint Par} = \frac{7\cdot322381}{\cdot290323} = 25\cdot2215 \text{ francs per } \text{£1}.$$

Second Method—By Chain Rule :

? Francs = £1.

£1 = 7·98805 grammes of standard gold.

Grammes standard 12 = 11 grammes of fine gold.

Grammes fine 900 = 3,100 francs.

$$\text{Mint Par} = \frac{7\cdot98805 \times 11 \times 3100}{900 \times 12}$$

Which is exactly the same result as we obtained above by simple proportion.

$$\therefore \text{Mint Par} = 25\cdot2215 \text{ francs} = \text{£1}.$$

2. United States.

By Chain Rule :

$$? \text{ Dollars} = \text{£}1.$$

$$\text{£}1 = 123 \cdot 27447 \text{ grains of standard gold.}$$

$$\text{Grains standard 12} = 11 \text{ grains fine gold.}$$

$$\text{Grains fine 9} = 10 \text{ grains standard, U.S.A.}$$

$$\text{Grains standard (U.S.A.) 258} = 10 \text{ gold dollars.}$$

$$41 \cdot 09149$$

$$\text{Mint Par} = \frac{123 \cdot 27447 \times 11 \times 10 \times 10}{12 \times 9 \times 258}$$

$$86$$

$$= \frac{45200 \cdot 639}{9288}$$

$$9'2'8'8)45200 \cdot 6(4 \cdot 8665$$

$$\underline{8048 \cdot 6}$$

$$\underline{618 \cdot 2}$$

$$\underline{60 \cdot 9}$$

$$\underline{5 \cdot 2}$$

$$6$$

Work *correct* to four places.
Number of integers = 1, therefore digits in quotient = 5, therefore find two places with full divisor before cutting off; and take one place in dividend.

$$\text{Mint Par} = 4 \cdot 8665 \text{ dollars per £.}$$

$$\text{Usually quoted as } \$4 \cdot 86\frac{2}{3} \text{ or } \$4 \cdot 867.$$

3. Germany.

$$? \text{ Marks} = \text{£}1.$$

$$\text{£}1 = 7 \cdot 98805 \text{ grammes standard.}$$

$$\text{Grammes standard 12} = 11 \text{ grammes fine.}$$

$$\text{Grammes fine 1,000} = 2,790 \text{ Reichsmarks.}$$

$$7 \cdot 98805 \times 11 \times 2790$$

$$\underline{12 \times 1000}$$

$$= \frac{0 \cdot 798805 \times 1023}{4}$$

Work correct to three places, so divide out by 4 and multiply.

$$\cdot 0199701 \times 1023$$

$$\cdot \quad \underline{3201}$$

$$19 \cdot 970$$

$$\cdot 399$$

$$\cdot 060$$

$$\underline{20 \cdot 429}$$

$$\text{Mint Par} = 20 \cdot 429 \text{ marks per £.}$$

4. Holland.

? Florins = £1.

£1 = 7.98805 grammes standard gold.

Grammes standard 12 = 11 grammes fine gold.

Grammes fine 6.048 = 10 florins.

$$\frac{10 \times 11 \times 7.98805}{12 \times 6.048} = \frac{878.6855}{72.576}$$

7'2'5'7'6)878.6855(12.107

152.927.77.511

Work to three places. Number
of integers = 2, therefore number
of digits in quotient = 5. Find
one and then strike off figures of
divisor.

Mint Par = 12.107 florins per £.

5. Scandinavia (Norway, Sweden, and Denmark).

? Kroner = £1.

£1 = 7.98805 grammes of standard gold.

Grammes standard 12 = 11 grammes fine.

Grammes fine 1,000 = 2,480 kroner.

$$\frac{7.98805 \times 11 \times 2480}{1000 \times 12}$$

3

878.6855 (See No. 4.)

261757.37

52721.13

3)54478.5

18159.5

Mint Par = 18.1595 kroner per £1.

6. Belgium.

? Belgas = £1

£1 = 7.98805 grammes standard.

Grammes standard 12 = 11 grammes fine.

Grammes fine .209211 = 1 belga.

$$\frac{1 \times 7.98805 \times 11 \times 1}{1 \times 12 \times .209211} \text{ belgas} = \text{£1}$$

$$\begin{array}{r}
 87 \cdot 86855 \\
 = \frac{\quad}{2 \cdot 510532}
 \end{array}
 \qquad
 \begin{array}{r}
 25'1'0)87868(35 \cdot 00 \\
 \underline{12568} \\
 18
 \end{array}$$

Mint Par = 35·00 belgas per £1.

7. Japan.

The Mint Par with Japan, which is quoted in pence per yen, is calculated as follows:

$$\begin{array}{l}
 ? \text{ Pence} = 1 \text{ yen,} \\
 1 \text{ Yen} = \cdot 75 \text{ gramme fine,} \\
 \text{Grammes fine } 7 \cdot 322381 = 240 \text{ pence.}
 \end{array}$$

$$\begin{array}{r}
 \cdot 75 \times 240 \\
 \hline
 7 \cdot 322381 \\
 7'3'2'2)18000(24 \cdot 58 \\
 \underline{3356} \\
 \underline{427} \\
 61
 \end{array}$$

Mint Par = 24·58 pence per yen.

8. Austria.

$$\begin{array}{l}
 ? \text{ Schillings} = \text{£1.} \\
 \text{£1} = 7 \cdot 98805 \text{ grammes standard.} \\
 \text{Grammes standard } 12 = 11 \text{ grammes fine.} \\
 \text{Grammes fine } 1000 = 4723 \cdot 2 \text{ schillings.}
 \end{array}$$

$$\begin{array}{r}
 2 \cdot 66268 \qquad 1180 \cdot 8 \\
 7 \cdot 98805 \times 11 \times 4723 \cdot 2 \\
 \hline
 12 \times 1000 \\
 1 \\
 = 2 \cdot 66268 \times 12 \cdot 9888 \\
 2 \cdot 66268 \\
 8 \cdot 88921 \\
 \hline
 26 \cdot 6268 \\
 5 \cdot 3254 \\
 2 \cdot 3963 \\
 \cdot 2130 \\
 \cdot 0213 \\
 \cdot 0021 \\
 \hline
 34 \cdot 5849
 \end{array}$$

Mint Par = 34·58½ schillings per £.

9. **France.**

? Francs = £1

£1 = 7·322382 grammes fine.

Grammes fine 900 = 1000 grammes French standard.

Grammes French standard 6·55 = 100 francs.

$$\frac{7 \cdot 322382 \times 1000 \times 100}{900 \times 6 \cdot 55}$$

5'8'9'5)732238·2(124·2134

14273

24838

12582

792

202

25

Mint Par = 124·2134 fcs. per £1.

10. **Italy.**

? Lire = £1

£1 = 7·322382 grammes fine.

Grammes fine 7·919 = 100 lire.

$$\frac{7 \cdot 322382 \times 100}{7 \cdot 919}$$

7'9'1'9)732238·2(92·46

19528

3690

522

47

Mint Par = 92·46 lire per £1.

Foreign Mint Pars.—It will be useful to indicate here how a Mint Par is determined between two foreign States, e.g., Switzerland and U.S.A. Three methods can be used :

- (1) Comparison of Mint Regulations as in the above examples.
- (2) Comparison of the two Mint Pars with Great Britain if they are known.
- (3) Comparison of the weight of fine gold in the two coins.

First Method.

? Francs = 1 dollar.

\$10 = 258 grains standard (U.S.A.).

Grains standard 480 = 31·1035 grammes standard,

Grammes standard (Swiss) 1000 = 3100 francs,

$$\begin{array}{r}
 43 \\
 258 \times 31 \cdot 1035 \times 3100 \\
 \hline
 10 \times 480 \times 1000 \\
 80 \\
 3999 \\
 1333 \\
 1333 \\
 3999 \\
 \hline
 41 \cdot 602
 \end{array}$$

$$= 5 \cdot 183 \text{ francs per dollar.}$$

Note : The fineness is the same in both countries, so it can be omitted from the calculation.

Second Method.

$$\text{£}1 = 25 \cdot 2215 \text{ francs} = 4 \cdot 8665 \text{ dollars,}$$

$$\therefore \$1 = \frac{25 \cdot 2215}{4 \cdot 8665} \text{ francs.}$$

$$\begin{array}{r}
 4'8'6'6'5)252215(5 \cdot 182 \\
 \underline{889} \\
 402 \\
 \underline{13}
 \end{array}$$

Mint Par, Switzerland and U.S.A. = 5·183 francs per dollar.

Third Method.

Given that 1 dollar contains 1·504632, and 1 franc ·290323, grammes fine gold, what is the Mint Par between Switzerland and New York?

$$? \text{ Francs} = 1 \text{ dollar.}$$

$$1 \text{ dollar} = 1 \cdot 504632 \text{ grammes fine.}$$

$$\text{Grammes fine } \cdot 290323 = 1 \text{ franc.}$$

$$\begin{array}{r}
 29'0'3'2)150463(5 \cdot 182 \\
 \underline{5303} \\
 2400 \\
 \underline{78}
 \end{array}$$

$$\frac{1 \cdot 504632}{\cdot 290323} = 5 \cdot 183 \text{ francs per \$1.}$$

Pre-War Specie Points.—The calculation of the gold points between any two countries is an arithmetical operation applied to determine the rate of exchange obtained by buying gold in one of the countries and selling it in the other.

In pre-war days, the calculation of the specie points between London and such important centres as Paris, Berlin and New York was a matter of comparative simplicity. Since gold coins were in circulation in these countries, it was usual to assume that gold could be obtained and sold in any of the countries *at mint par rates*. Strictly speaking, however, a calculation on this basis would be accurate only if *full-weight* coins were obtained for export; if light-weight coins were exported, or if the gold concerned was in the form of bars, the out-turn would be affected. Allowance would have to be made, in the former case, for loss due to abrasion, etc., and, in the latter case, for minting charges. Then the pre-war expenses of transmission, including interest charges, were ordinarily given as an all-in figure per unit of currency to be added or deducted from the mint par equivalent between the two currencies concerned. Actually, the expenses were always subject to some variation, but that variation was so slight that what we may describe as an “average” figure was quoted almost by general consent, e.g., 10 centimes per £1 between France and London, 5 per mille between London and Berlin, and so on.

In such circumstances, the pre-war specie points between London and one of these countries were well known and more or less fixed, while the calculation resolved itself merely into a matter of making the allowances *in the right direction*, i.e., adding them to or deducting them from the mint parity, as the case may be. In making such a calculation, the guiding principle, from the standpoint of London, is that “*High rates in foreign money are for us, and low rates against us*,” so that the incoming specie point is always *above* the mint par, while the outgoing point is always *below* it, as is illustrated in the following cases:

FRANCE.—Prior to 1926 the mint par between France and England was 25·2215 francs per £1. The expenses of transmitting gold in pre-war days from London to Paris, or *vice versa*, were usually given as 10 cents per £1, or 10 cents per 25·2215 francs. Hence the pre-war specie points were:—

				To England	From England.
Mint Par	..	..	..	25·2215	25·2215
Expenses	..	..	..	·10	·10
Specie Points	..	..	..	25·3215	25·1215

UNITED STATES.—In this case the mint par was, as it is at present, \$4·8665 per £1. Expenses *from London* to New York were usually given as 8 per mille, and those *from New York* to London as 5 per mille

	To England.		From England
Mint Par .	4 866		.. 4·866
Add expenses 5 per mille	·024	Deduct expenses 8 per mille	
Specie Points	<u>\$4·890</u>		<u>·039</u>
			\$4·827

GERMANY.—The German mint par in pro-war days was, numerically, the same as it is to-day, viz., 20·429 marks per £1, and the expenses of moving gold between that country and Britain were invariably given as 5 per mille. Hence.—

	To England.	From England
Mint Par	20·429	20·429
Expenses 5 per mille	·102	·102
Specie Points	<u>20·531</u>	<u>20·327</u>

Present-Day Specie Points.—In consequence of conditions which have arisen from the War, the calculation of present-day specie points is a matter of far greater complexity. Reasons for this have already been given. The expenses of transmission nowadays vary far more frequently. Competition between the shipping companies themselves, and between the shipping companies and air lines, has brought a steady reduction in freight charges, and made it a matter of some difficulty to determine beforehand what the rate is likely to be at any particular time. Rates of interest are also an important and constantly changing factor.

Then, again, there is now no country in the world where gold coins circulate to such an extent that sufficient full weight coins can be obtained for export at short notice, or where a large quantity of foreign coins imported will be accepted at mint par rates. The price at which gold can be obtained or disposed of depends on the price at which the metal is sold or bought by the central bank or Government, as the case may be. In several countries which have returned to the gold basis, the buying and selling prices for the metal are not yet definitely determinable, and it is not always certain that the central authority will actually *sell* gold. Most of the European and South American Countries and Japan have what we may call “one-sided” gold markets. The central authorities concerned are always willing to *buy* gold, but when they are asked to *sell* gold they resort to various devices to avoid the unpleasant necessity of doing so. They may fall back on their legal right to sell gold exchange (i.e., credit remittances on gold standard centres) instead of actual gold, or they may impose an exporting charge or an assaying fee, or insist on paying out light foreign coins

(e.g., the Argentine in 1929), or obsolete foreign coins, or foreign coins of a country other than the one to which the gold is being shipped, thus reducing the out-turn or otherwise discouraging a shipment. Other countries resort to various expedients with the object of *encouraging* the outflow of gold. Thus, in the United States, the Federal Reserve authorities have on occasion delivered gold free on board ship and thus saved exporters certain incidental expenses on that side.

The position is further complicated by the fact that many large bullion movements which now take place are "special transactions," having no precise relationship to the position of the foreign exchanges, and being subject to considerations of quite exceptional character, as, for example, the ignoring of the factor of interest when the movement of gold represents the transfer of part of a bank's metallic reserves, or the mere exchange of a gold holding held abroad for a credit in a foreign central bank's books. (See also Chapter III.)

It is therefore not as easy to say, as it was in pre-war days, that at a given rate of exchange between any two centres, gold is likely to move from one of those centres to the other. At any particular time, it is merely possible to make an *estimate* of the rate at which bullion arbitrageurs should find it profitable to move the metal, and, even when there appears to be a prospect of adequate profit, there can be no certainty that gold will move. In this connection the question of speedy transport is of importance. The movement of gold from London to New York may just be prevented on a fall in the exchange merely because there is no fast boat immediately available, and, in the same way, the difficulty of obtaining aeroplane accommodation at short notice may be sufficient to prevent the export of gold from London to a continental centre.

The reader should, therefore, bear these facts carefully in mind in remarking the following figures for the approximate gold points between London and the centres mentioned:

Amsterdam. (By air)

To London, Fl. 12·1415 per £1.
From London, Fl. 12·0445 per £1.

Berlin. (By air)

To London, Rmks. 20·5022 per £1.
From London, Rmks. 20·3485 per £1.

Berne. (By air.)

To London, Fcs. 25·375 per £1.
From London, Fcs. 25·1275 per £1.

Paris. (By air.)

To London, Fcs. 124 554 per £1.
From London, Fcs. 123·925 per £1.

Stockholm.

To London, Kr. 18·245 per £1.
From London, Kr. 18·095 per £1.

New York.

To London, \$4·8864 per £1.
From London, \$4·8518 per £1.

Calculation of Present-Day Specie Points.—In order to calculate a present-day specie point accurately, it is necessary to know (a) the price at which the gold is bought in the exporting centre; (b) all the items of expenses involved; (c) the rate of interest (if any) which is to be allowed for during the transit of the metal; (d) the *total* time (in days) taken in transit, i.e. from the day of purchase in the exporting centre to the day on which credit is received in the foreign centre; and (e) the price at which the gold is sold in the importing centre.

The method of calculation may be illustrated by reference to the following *pro-forma* invoice relative to a shipment of bar gold from London to New York (for which the author is indebted to Messrs. Mocatta & Goldsmid, the well-known London bullion dealers).

Pro forma			
INVOICE FOR BAR GOLD			
SHIPPED FROM LONDON TO NEW YORK			
<hr/>			
Oz. Fine.			
\$1,000,000 = 48,375 = say, 120 bars.			
<hr/>			
@ 84s. 11½d. per oz. fine ..	205,492	19	5
Brokerage in London, 5s. per mille ..	51	7	6
Commission in New York, 5s. per mille ..	51	7	6
30 Boxes, Packing, etc., @ 7s. 6d. ..	11	5	0
Freight 5s. % on £205,500 ..	513	15	0
*(95 %) Interest 10 days on £195,250 @ 5 % .	267	9	3
*(5 %) Interest 20 days on £10,250 @ 5 % ..	28	1	8
Insurance 1s. % on £227,140 and Policies ..	113	12	0
LONDON, June 29, 1925.	£206,529	17	4

* NOTE.—Approximately 95 per cent. of shipment is released on arrival, the remainder being retained an extra 10 days for assaying, etc.

It will be observed that the *pro-forma* invoice is drawn up on the assumption that the gold is purchased in London at the Bank of England selling price of 84/11½d. per fine ounce. (It may, of course, be obtained either from the Bank or from the Bullion Market at this price, *but the cost will not be higher* than this.) The brokerage in London represents the charge made by the bullion dealers who purchase the gold and arrange for its shipment, the item "Commission in New York" being the corresponding charge on the other side for collecting the gold and arranging for its disposal.

On its arrival in New York, the gold is sold at the fixed price of \$20·67183 per ounce troy and thus realises \$1,000,000, for which

amount credit is obtained in New York, against the total sterling outlay of £206,529·867. This gives the approximate export specie point from London to New York at the date of the invoice as

$$\frac{\$1,000,000}{206529\cdot867} = \$4\cdot8418 \text{ per } \pounds 1.$$

Since 1925, competition between shipping companies for transatlantic bullion shipments has resulted in a reduction of the freight rate between London and New York to about 3s. per £100, and, for similar reasons, the insurance charge has fallen to about 9d. per cent. Interest charges, also, are nowadays usually brought into account at a lower figure, the period between London and New York being reckoned at about 8 days only.

The result of these reductions is naturally to lessen the margin between the export and import specie points, i.e., to *increase* the former and to *decrease* the latter. Thus a reduction of 1s. per cent. in the charge for freight makes a difference of approximately $\frac{15}{64}$ of one cent in the specie point, and, on a 5 per cent. basis, the saving of a day's interest by reason of speedier transport approximates to a similar difference of $\frac{1}{16}$ of one cent.

These facts may be illustrated by comparing the above *pro-forma* invoice with the following more recent statements of bullion shipments between London and New York:—

Gold Export Point, London to New York, 1929.

100,000 fine ounces bought from the Market at	£	s.	d.
84s. 11·4546	424,772	15	0
Freight, 3s. % on £424,800	637	4	0
Insurance, 9d. % on £429,020*	160	17	6
Interest, 8 days @ 5 %	465	10	6
Boxes and Packing	16	10	0
Brokerage in London, 5s. $\frac{0}{100}$	106	5	0
Commission in New York, 5s. $\frac{0}{100}$	106	5	0
	<u>£426,265</u>	<u>7</u>	<u>0</u>

* Gold value plus 1 %.

100,000 fine ounces sold to the United States Treasury at \$20·67183
= \$2067183.

$$\text{Export point, London to New York} = \frac{2067183}{426265} \\ = \$4\cdot85 \text{ per } \pounds 1.$$

Gold Import Point, New York to London.

100,000 fine ounces bought in New York from the United States Treasury at \$20·67183 per fine ounce	\$	2,067,183
Bullion Brokers' Commission in New York @ $\frac{1}{8}$ per mille	388	
Packing and boxes	100	
Freight @ ·15 %	3,100	
Insurance @ ·0375 %	775	
Interest, 8 days @ say, $4\frac{1}{2}$ %	2,039	
		<u>6,402</u>
		<u>\$2,073,585</u>
	£	
100,000 fine ounces sold to the Bank of England at $84/10\frac{1}{2}$ per fine ounce	424,375	
Trucking and brokerage on this side	20	
		<u>1,424,355</u>

$$\begin{aligned} \text{Export point, New York to London} &= \frac{2073585}{424355} \\ &= \$4\cdot8864 \text{ per } \text{£}1. \end{aligned}$$

Gold Export Point, London to New York.

The following statement is based on a shipment of British standard gold, obtained from the Bank of England.

Shipment of std oz. 128,528·268 @ $77/10\frac{1}{2}$ d. per oz., in 296 bars of about 28 lb. troy each, in 74 boxes per s.s. <i>Mauretania</i> .	£	s	d
Std. oz. 128,528·268 @ $77/10\frac{1}{2}$ d. per oz.	500,456	18	10
Freight at 3s. % (from Bank of England vaults to quay in New York)	750	15	0
Insurance (from 9d. to 2s. %,—average 1s. %)	250	5	0
Brokerage, $\frac{1}{4}$ % (may be reduced to $\frac{1}{8}$ %)	125	2	6
Packing and sundries	15	0	0
	<u>£501,598</u>	<u>1</u>	<u>4</u>

Out-turn in New York.

Std. oz. 128,528·268 = Fine oz. 117,817·58.		
Fine oz. 117,817·58 @ \$20·67183 per oz.	\$2,435,504	98
Less.		
Interest for 7 days @ 6 % p.a. on 97 % of remittance (New York terms, 360 days p.a.)	2,756	18
Interest for 28 days @ 6 % p.a. on 3 %	341	
Melting and Assaying—loss of weight in process	609	3,706
Nett	<u>\$2,431,798</u>	<u>80</u>

\$2,431,798·80, costing £501,598 1s. 4d., gives an equivalent rate of $\$4\cdot84\frac{1}{2}$ (nearest).

Gold Export Point, London to Paris.

32,150·725 oz. fine gold bought in London from the Bank of England at 84s. $11\frac{1}{2}$ d.	£	s	d
Carriage at $10\frac{1}{2}$ d. per £100	136,573	12	0
Insurance at 6d. per £100	59	15	3
Packing 20 boxes at 5s.	34	3	0
Interest, two days at $4\frac{1}{2}$ %	5	0	0
	<u>33</u>	<u>13</u>	<u>6</u>
	<u>£136,706</u>	<u>3</u>	<u>9</u>

1,000 kilos of fine gold sold to the Bank of France at 16,963·50	
per kilo	Fcs. 16,963,500
Minting costs at fr. 20 per kilo, 900 fine, say	22,184
Net proceeds	<u>Fcs. 16,941,316</u>

$$\begin{aligned} \text{Export Specie Point, London to Paris} &= \text{Fcs. } \frac{16,941,316}{136,706 \cdot 1875} \\ &= \text{Fcs. } 123 \cdot 92\frac{1}{2} \text{ per } \text{£}1 \end{aligned}$$

This calculation is based on the supposition that the minting charge imposed in France is Fcs. 20 per kilo, 900 fine, but by law a maximum charge of Fcs. 40 may be made, and the reduced charge is subject to alteration at a fortnight's notice. Moreover, no allowance has been made for assay charges because the Bank of France will usually accept the seller's guarantee. If, however, an assay is necessary, the gold point will probably be just slightly over 123·90

Commission and Brokerage.—These items in the statements of the New York bullion points reproduced above represent the charges made by the bullion dealers in the two centres concerned for their services in buying and selling the gold, and arranging for its packing and transport. Such charges are, however, frequently omitted, in which case the calculation is made on the assumption that the gold is being moved by a bank or financial house which itself carries out the necessary functions and thus saves the expenses involved. The result of the omission of such charges is to narrow the margin between the export and import specie points, and to make it possible to withdraw gold from a country at a higher (i.e., more favourable) rate of exchange than would otherwise be possible. Thus, if the two items of £106 5s. 0d. are omitted in the foregoing illustration, the gold point is as follows:—

$$\begin{aligned} \text{Gold point} &= \frac{2067183}{426052} = \$4 \cdot 8515 \\ \text{Say, } &\$4 \cdot 85\frac{5}{32} \text{ per } \text{£}1. \end{aligned}$$

When brokerages are omitted, therefore, gold would leave London for New York when the rate reached about $4 \cdot 85\frac{5}{32}$, whereas, if these charges are included, the rate must fall to 4·85 before the movement would be profitable.

Strictly speaking, the export gold point from one country A to another country B at any particular time is the highest rate of exchange, i.e., the most favourable rate to A, at which gold will move, since bankers and others who are in a position to ignore certain expenses will naturally ship gold as soon as they see a prospect of profit in the operation.

CHAPTER XXI

REMITTANCES AND DRAFTS—LONG AND SHORT RATES— “TEL QUEL” RATES

As is indicated in Chapter V, debts arising from international business and between creditor and debtor in different countries may be settled in a number of ways. Between the banks, financial institutions, and certain large commercial houses, telegraphic and mail transfers are far and away the most important means of effecting settlements, but for ordinary trade operations the bill of exchange remains pre-eminent. The bill of exchange may, of course, consist of a cheque, sight draft or demand draft payable on presentation to the drawee, or it may take the form of a short bill payable from three to ten days after date or after sight, but the vast majority of business settlements are effected by the long bill payable in three months or so after date or after sight.

The disadvantage of a settlement by sight bill or T.T. from the point of view of the importer is that it involves *immediate* payment for goods which may not be delivered, sold and paid for by the ultimate buyers until several weeks later, during which time, of course, the importer is deprived of the use of the capital in his business. The long bill, on the other hand, gives the importer a period of extended credit during which he can receive and dispose of the goods, while, at the same time, it does not keep the creditor out of his money since he can, if he wishes, sell or discount the bill with his banker for a small charge as soon as he has shipped the relative goods.

The actual method by which settlement of a debt for goods is to be effected will in most cases be arranged by the parties at the time the bargain is made. Sometimes it may be tacitly understood that the method to be followed is one which is well known and firmly established in the particular trade concerned, but it is, of course, far better to avoid any possibility of mistake or misunderstanding by having the matter clearly settled in the correspondence or on the order form and acceptance letter.

Settlement by Telegraphic Transfer or Cable.—Probably the simplest method of settling a debt payable abroad is that whereby the debtor requests his banker to instruct the latter's agents in a foreign centre by T.T. or by cable to pay a specified sum to a named person or concern. In such a case, the remitter is usually quoted an "all in" rate by the banker for the facility, or he is quoted a rate exclusive of the cost of the telegram, which may be charged separately. The rate will, in any case, include the bank's profit, but, as we have seen in an earlier chapter, finer rates are quoted according to the amount involved and the importance of the customer.

The calculation of the sterling equivalent of a T.T. or cable merely involves a translation from one currency to the other at the rate to be applied. No interest has to be taken into account, since the foreign currency equivalent is paid out on the other side on the same day as sterling is paid here. (See *valeur compensée*, page 76.)

Nearest Commercial Rate.—Since the rates on the Foreign Exchange market are always quoted to the nearest recognised "step" for the exchange in question, a banker who is asked to buy or to sell a draft or T.T., and has to make a calculation to determine the relative rate, will always apply the nearest commercial rate *in his own favour*. That is to say, if he is *buying* a bill in dollars and works out the rate to \$4·82755, he will apply the next highest commercial rate, i.e., \$4·82 $\frac{49}{64}$, and not the next lowest, i.e., \$4·82 $\frac{3}{4}$, although the latter is nearer to his calculated decimal. If he were selling, he would, of course, apply the lower rate, viz., \$4·82 $\frac{3}{4}$.

Example 1 —For what amount in sterling would your bank dealer sell a customer a T.T. on New York for \$100,000, if the market quotes \$4·86 $\frac{11}{16}$ –4·86 $\frac{13}{16}$, and the dealer reckons his profit at $\frac{1}{16}$ in the rate?

Dealer's selling price for T.T. is \$4·86 $\frac{11}{16}$ less $\frac{1}{16}$, i.e., 4·86 $\frac{5}{8}$ per £1.

$$\begin{aligned}\therefore \text{Amount charged to customer} &= \frac{100,000}{4\cdot86625} \\ &= \text{£}20,549 \text{ 14s. 1d.}\end{aligned}$$

Example 2.—Calculate the price a dealer would charge a customer for a T.T. on Buenos Ayres for 25,000 pesos, if the dealer is quoted 47 $\frac{55}{64}$ –47 $\frac{57}{64}$ by the Market, and reckons his commission at 1 per mille?

Dealer's selling price for T.T. is	.. ..	47·890625 pence.
Plus his profit @ 1 per mille	.. ..	<u>·047891</u>
i.e.,	.. ..	<u>47·938516</u> ..
Say, $47\frac{61}{64}$ pence per peso.		

$$\therefore \text{Amount charged to customer} = \text{£}25,000 \times 47\frac{61}{64} \times \frac{1}{240} \times \frac{44}{100} \\ = \text{£}2,197 \text{ } 17\text{s } 0\text{d}$$

Important Note—Although the London Market quotation on Buenos Ayres is in pence per *gold* peso, all dealings are in *paper* pesos, whose value is only 44% of that of the gold currency. (See page 472.)

Settlement by Mail Transfer.—Since payment by telegraphic transfer is the most expensive method of effecting the settlement of a debt, and involves not only a less favourable rate to the remitter, but also expenses for the telegram or cable, parties to a commercial transaction, who wish to settle in less time than would be taken by a long bill, may arrange that payment shall be made through a banker by *mail transfer*.

The essentials and advantages of payment by mail transfer have previously been mentioned. Such a payment is always under the control of the bank concerned, and the rate quoted therefore is *dearer* than is quoted for a sight draft handed to a customer for despatch and presentment by the creditor abroad. On the other hand, the rates quoted for mail transfers are *cheaper* than the rates for T.T. and cable, because the bank has to allow the customer interest on the funds involved for the period which must elapse before payment is made in the foreign centre. Thus the rate charged for M/T is calculated from the rate for T.T. by making an allowance for the selling banker's profit, and for interest at the rate ruling on banker's funds in the place of payment, since the banker who sells M/T ordinarily covers himself by purchasing T.T. on the same centre, and thus has the use of the funds in that centre until the M/T is presented and paid.

"Guaranteed" Mail Transfers.—The period for which the dealer allows interest in the calculation of the rate for M/T will depend on the distance between the centres, on the time of the next outgoing mail, on the time taken in transit, and on the period which must elapse before the mail is "cleared" in the foreign centre: i.e., the period depends on the total time which must elapse between the date of the receipt of sterling in London, and the date on which the dealer's currency account abroad is debited with the payment to the beneficiary.

The dealer works on the best information at his disposal as much for his own protection as for that of his customer, but, in estimating the time of delivery of a foreign mail, the possibility of miscalculation has always to be reckoned with, and either buyer or seller of M/T for large amount may suffer unexpected loss or receive an unexpected profit if the mail is delivered a day or so earlier or later than is anticipated. For this reason, it has become the practice in the London market for dealers to sell *Guaranteed Mail Transfers*, whereby they guarantee to make payment in a foreign centre on a stated date, irrespective of the time of arrival and delivery of the mail, in return for payment of sterling at a fixed rate of exchange. The seller ensures that payment in the foreign centre shall be made on the agreed date by advising his agent by cable sent at "deferred" (i.e., cheaper) rates, thus obviating the possibility of mail delays.

The advantages of the guaranteed mail transfer are that both seller and buyer know precisely when payment in the foreign centre will be made, and the seller can calculate exactly the "spread", or difference, between his T.T. rate and the rate to be applied to the M/T. It also enables payments to be made at approximately M/T rates when, in fact, no mail is due to leave in the immediate future, and has special advantages in connection with the short-term investment of funds, since the parties can calculate the period involved with absolute certainty.

Example 3—Calculate the sterling equivalent of a G.M.T. for \$100,000 on New York, if the market quotes spot dollars at $4\cdot86\frac{49}{64}-\frac{51}{64}$, and you allow interest at 5 % (New York rate) for 10 days, and your profit at $\frac{1}{64}$ th in the rate.

Dealer's selling rate for dollars is $\$4\cdot86\frac{49}{64}$, less his	
profit, $\frac{1}{64}$ th, viz., $\$4\cdot86\frac{3}{4}$	$\$4\cdot8675$
Interest for 10 days @ 5 %	$\cdot00676$
	<u>$\\$4\cdot8743$</u>

Say, $\$4\cdot87\frac{27}{64}$

$$\text{Sterling equivalent} = \frac{\text{£}100,000}{4\cdot87\frac{27}{64}} = \frac{100,000}{4\cdot87421875}$$

\therefore £20,516 2s. 4d.

Settlement by Debtor's Remittance of Sight Draft or Cheque.—
The additional expense of payment through a bank by T.T. or M/T

may be avoided if the parties arrange that settlement shall be effected by the debtor's remittance of the amount due, either with his order, or as soon as he has received the goods, or at any other agreed time. Nowadays, such a remittance, particularly from this and other important countries, usually takes the form of a banker's cheque or sight draft payable in the creditor's country and in his currency. The remittance is paid for by the debtor at the short exchange, and, on being received through the post by the creditor, is encashed by him at the drawee bank and the amount placed to the debtor's credit. In some cases, it may be arranged that the draft so remitted shall be in the debtor's currency, and the creditor will then obtain the equivalent in his own currency from the drawee banker either at the prevailing rate for such drafts, or at a rate determined in accordance with an exchange clause embodied in the instrument.

Calculation of the Short or Cheque Rate.—In some centres, e.g., New York, the majority of rates officially published each day are for cheques or demand drafts, and, wherever such a rate exists for the currency required by a remitter in the form of a draft, business can be effected at that rate. In London, however, all market rates are for T.T., so that the dealer must calculate the rate to be applied in the purchase or sale of cheques, short bills and demand drafts by allowing interest off or on the T.T. rate in the customer's favour for the time which must elapse between the issue of the cheque or draft, and the date of its presentment for payment to the drawee. This interest will be calculated, as in the case of M/T, at the rate ruling in the foreign centre on call money or short deposits, and the time will, of course, vary with the period usually taken by the mail and the date of the next outgoing mail from this side to the centre concerned. Hence, the "spread" between the rate for T.T.'s or cable transfers and the rate for cheques and demand drafts (sometimes called the *cheque margin*) necessarily widens with any increase in the rate of interest ruling in the foreign centre concerned, and with any extension of the time taken by the mail to that centre.

If the rate for T.T. is in foreign money per £1, the cheque rate, being for a "worse" remittance, will be more favourable to the customer, i.e., higher, hence the allowance for interest must be *added* to the dealer's selling rate for the currency in question, while the dealer will *deduct* his usual allowance for profit.

The sight and cheque rates are the same, because a sight draft, like a cheque, is payable on demand. The 8 days' rate on London (quoted by Berlin before the War, and by Paris and other centres

nowadays, and known over there as the "Short Rate") allows, of course, for 11 days' interest, which includes the three days' grace allowed in England for the payment of the bill or draft.

It may be observed, at this point, that the extending use of air mails for commercial purposes has caused some difficulty to bankers in connection with the issue of sight drafts and cheques, for the reason that, in a number of cases, drafts have been forwarded by air mail and presented for payment to the foreign agent before receipt of the issuing banker's advice, which has been despatched by ordinary mail. Nowadays, therefore, banks charge less favourable rates for drafts which are to be advised and forwarded by air mail, owing to the loss of interest and extra postage involved.

This position may be illustrated by reference to the rates quoted by London on Paris, Amsterdam and Brussels. These centres are in such close and constant communication, and competition for business is so keen, that cheques and demand drafts for small amounts are usually sold at the same rate as is charged for T.T.

In the case of large amounts, however, there is generally a spread between the cheque and T.T. rates depending on the relative value of money in the two centres concerned, and the use of the air mail between the centres has led to the curious anomaly of the cheque rate being at times *dearer* than the T.T. rate. To understand how this position arises, it must be remembered that in London T.T.'s on Paris and Amsterdam are value *two* days ahead, whereas cheques are paid for in sterling on the *day after dealing*, and, if they are sent by air, can be cashed in Paris on that day, i e., on the day after purchase in London. Consequently, the spread between the T.T. and cheque rates on these centres for large sums must, in certain circumstances, allow for one day's interest *in favour of the seller* of the cheque. For example, suppose that when day to day money is worth $4\frac{1}{2}\%$ in London and $6\frac{1}{2}\%$ in Paris, a London dealer sells cheque on Paris for Fcs. 250,000. He covers by the purchase of T.T. value two days ahead, but the cheque is presented by air mail and paid on the day after it is sold to the customer. Consequently, the dealer is "out of" francs for one day, costing him $6\frac{1}{2}\%$, while he is "in" sterling for the same period, gaining $4\frac{1}{2}\%$. He must therefore cover himself in the rate quoted for the cheque in respect of the difference of 2% interest charged to him in Paris, making the cheque rate to that extent *dearer* than the T.T. rate.

Example 4.—Find the cost of a sight draft on Amsterdam for

5,254·16 florins, exchange being 12·12, allowing for the bank's profit at 1 per mille.

(a) Draft required for .. .	5,254·16 florins.
Profit	<u>5·254</u>
Total to be paid for ..	<u>5,259·414</u> „

$$\text{Cost} = \frac{\text{£}5,259·414}{12·12} = \text{£}433·945$$

$$= \text{£}433 \text{ 18s. 11d.}$$

$$(b) \quad \text{Cost of draft} = \frac{\text{£}5,254·16}{12·12} = \text{£}433·511$$

$$\text{Profit @ 1 per mille} \quad \quad \quad \cdot 434$$

$$\underline{\underline{\text{£}433·945}}$$

$$= \text{£}433 \text{ 18s. 11d.}$$

(c) *Practical method*—

Market rate	12·12
Bank's profit	<u>·01212</u>
Rate quoted to customer.	<u>12·10788</u>

$$\text{Sterling cost of draft} = \frac{\text{£}5,254·16}{12·10788}$$

$$= \text{£}433 \text{ 18s. 11d.}$$

Example 5—For what amount would you issue a draft on France against payment of £1,000, the short rate of exchange being 124·15, your profit 1 per mille?

(a) £1,000 @ Fcs. 124·15 (short)	= Fcs. 124,150
Profit 1 per mille	= <u>124·15</u>
Amount of draft	= Fcs. <u>124,025·85</u>

(b) Amount of payment, less profit @ 1 per mille = £999.

$$\text{Amount of draft} = 999 \times \text{Fcs. } 124·15$$

$$= \text{Fcs. } 124·15 (1,000 - 1)$$

$$= \text{Fcs. } 124,025·85$$

Example 6.—Issue a draft on Portugal against payment of £445 12s. 6d., exchange @ 110, your profit 1 per mille.

(a) £445·625 @ 110 short	= 49,018·75 escudos.
Profit	= <u>49·02</u>
Amount of draft	= <u>48,969·73</u> escudos.

Say, 48,969 escudos.

(b) Amount of payment	..	..	=	£445·625
Less Profit	..	..	=	·446
				<u>£445·179</u>

Amount exchanged into escudos = £445·179 × 110

Say, 48,969 escudos.

Example 7.—The Market quotes dollars at $\$4.86\frac{13}{16}-\frac{15}{16}$. What rate would your bank dealer apply on the sale of a cheque on New York, if he allows profit at $\frac{1}{8}\%$, and interest at 4 % for 10 days?

Dealer's selling rate for T.T. is	..	..	..	4·868125
Less his profit at $\frac{1}{8}\%$	..	..	..	·000609
i.e.,	..	..	..	<u>4·867516</u>
Add interest for 10 days @ 4 %	..	..	..	·00541
Short rate on New York	..	..	..	<u>4·872926</u>

Say, $\$4.87\frac{9}{32}$.

Example 8.—Your bank dealer quotes T.T. Buenos Ayres at $47\frac{7}{16}-47\frac{1}{2}$, and is asked to sell a cheque on that centre for 100,000 pesos. What rate will he apply if his funds earn 6 % in Buenos Ayres, and he allows 15 days for postal transmission?

It can be assumed that the rate quoted by the dealer includes the bank's profit.

His selling rate for T.T. is	..	..	..	47·50 pence.
Less interest which he must allow the customer				
for approximately 15 days @ 6 %	..	..	..	·117
				<u>47·383</u> ..

Say, $47\frac{25}{64}$ d. per peso.

(See the Note to Example 2, above)

Example 9.—For what amount would you issue a sight bill for Fcs. 20,000 on Paris, the T.T. rate being Fcs. 124·13–124·15, your profit at 1 per mille?

T.T. selling rate	..	..	..	Fcs. 124·13
Less profit 1 per mille	..	..	..	·124
Sight rate	..	..	..	<u>Fcs. 124·006</u>

Say, 124 francs per £.

Sterling payment required = $\frac{20,000}{124}$

= £161 5s. 10d;

Settlement by Creditors' Sight Draft.—Very frequently, it is arranged that the initiative in regard to the settlement of a trade debt shall be taken by the creditor, who will draw either at sight or by long bill on the debtor direct, or under a letter of credit on a bank in the debtor's country or on a bank in his own country. The bill so drawn may be expressed in the currency of the creditor's country, or, as is more usual, in the debtor's currency, or, as is frequently the case between countries of relatively less importance, in an international currency such as sterling or the United States dollar.

If the creditor obtains payment by a sight bill in his own currency, he will draw for the total amount of his invoice *plus* any charges which he may have incurred in packing and forwarding the goods, as may be determined by the contract of sale. The draft will be either turned into cash at once by being sold to a banker for its face value less discount, or it may be handed to the latter for collection and credit of the proceeds in due course.

If the creditor lives in England, he will probably draw his bill in sterling and insert therein an exchange clause in one of the forms illustrated in Chapter V. By so doing he makes certain of obtaining the exact amount due to him, less a small charge for the negotiating banker's commission or profit, and fixes the rate of exchange at which the bill shall be ultimately paid by the foreign drawee. If the bill is drawn "Exchange as per endorsement", the rate will be specified on the bill by the negotiating banker on this side, the amount of the instrument will be converted at this rate and the bill will thereafter function as if it were originally drawn in the foreign currency concerned. The foreign drawee or debtor should be advised of the rate applied to the bill so that he will know what amount he will be required to pay on presentment.

If the creditor draws at sight or on demand on his debtor in the latter's currency or in another foreign currency, the amount paid to him in his own currency by the negotiating banker will be determined by a simple conversion at the rate of exchange applicable to the class of remittance to which the draft belongs, the banker seeing that he is covered in the rate for his own profit.

If the draft is sold in a centre which quotes a cheque rate or sight rate in the foreign currency concerned, the conversion will, of course, be effected at that rate. In London, however, the short rate to be applied must first of all be calculated from the T.T. rate, due allowance being made, in the manner already explained, for interest for the estimated period during which the negotiating bank will be out of its

funds, and for the bank's profit, if that is not already covered in the T.T. rate.

Example 10.—Find the value to a creditor in Paris of a sight draft on London for £676 17s. 6d., the rate to be applied being 123·98, negotiating bank's profit 1 per mille.

	123·98			
	677			
	<u>867·86</u>	£676·875 @ Fcs. 100	=	67687·5
	8678·6	@ 20	-	13537·5
	<u>74388</u>	@ 4	=	2707·5
	83934·46	124	=	83932·5
2s. 6d. = $\frac{1}{8}$	15·498	Less @	·02	= 13·538
Less Profit	<u>83918·962</u>	Fcs. 123·98	=	83918·962
@ 1 per mille	83·919	Profit	=	83·919
	<u>83835·043</u>			<u>83835·043</u>

Value to the creditor, say, Fcs. 83,835

In practice, the bank's profit is usually taken in the rate applied to the draft. By applying this method to the Example, we find that the creditor receives slightly less:—

Market rate	..	..	..	123·98
Less bank's profit	..	..	..	·124
Rate to be applied	..	=		<u>123·856</u>

Say, 123·855.

$$\begin{aligned}\text{Value to creditor} &= \text{Fcs. } 676 \cdot 875 \times 123 \cdot 855 \\ &= \text{Fcs. } 83,834 \cdot 35\end{aligned}$$

Example 11.—How much should I realise in London for a short bill on Portugal for £782 18s. 9d, short exchange being at 109–109 $\frac{1}{2}$, negotiating bank's profit 1 per mille?

In this example, calculation is not necessary, as the amount is in sterling, so that the sum realised is the amount of the bill, less collecting bankers' charges, i.e.:—

$$\begin{aligned}&\text{£}782 \cdot 9375 \\ &\quad \cdot 783 \\ &\hline &\text{£}782 \cdot 1545 = \text{£}782 \text{ 3s. 1d.}\end{aligned}$$

Example 12.—What would you give for a demand draft on Milan

for lire 97,265, if the market rate is $92-92\frac{1}{16}$, your bank's profit $\frac{1}{10}$ of 1 %, the time taken 4 days and interest in Milan 4 %?

T.T. buying rate	..	..	..	..	92·0625	lire.
Profit 1 per mille	..	..	..	.	·09206	„
Interest, 4 days at 4 %	..	..	.		·04036	„
Sight rate	..	..	..	=	<u>92·1949</u>	„

Say, 92·20 lire per £.

$$\begin{aligned}\text{Amount paid for draft} &= \frac{97265}{92\cdot2} \\ &= \text{£}1,054 \text{ 18s. 8d.}\end{aligned}$$

Example 13.—What amount in sterling would you give for a bill of exchange on demand drawn on Warsaw for 5,000 zlotys, if the rate of exchange is 43·20–43·25, and you allow zl. 3 per zl. 1,000 for stamp duty on demand bills in Poland and $\frac{1}{16}$ % for your collection charges?

(a) Sterling equivalent of bill at buying rate ..	=	$\frac{\text{£}5000}{43\cdot25}$
	=	£115·607
Less Stamp duty at 3 $\frac{0}{100}$	..	·347
Collection charges @ $\frac{1}{16}$ %	..	·072
		<u>·419</u>
Net proceeds to customer	..	<u>£115·188</u>
i e., £115 3s. 9d.		

(b) Amount of bill paid by drawee	..	..	zl. 5,000
Less Stamp duty paid by collecting banker's agent	..	..	<u>15</u>
			zl. 4,985
Sterling proceeds ..	=	$\frac{4985}{43\cdot25}$	= £115·260
Less Collection charges $\frac{1}{16}$ %	..	..	·072
Net proceeds to customer	..	..	<u>£115·188</u>
i e., £115 3s. 9d.			

NOTE.—If very large sums were involved, these two methods might not yield exactly the same result, owing to the different method of calculating the collection charges. The second method would most likely be used in practice.

Settlement by Creditor's Long Bill.—The procedure is not quite so simple when the parties agree that settlement shall be effected by a long bill drawn by the creditor on the debtor. In order to illustrate the position, we will assume that a London merchant imports goods from America to the value of £1,000 (including expenses on that side) and that, the short exchange being \$4·865 per £1, the parties arrange that the creditor in New York shall obtain payment by drawing on the British importer at three months *after sight* for the amount due.

Clearly, the creditor who draws a three months' bill for £1,000 on London is faced with two alternative ways of obtaining payment: (a) He may hand the bill to his banker and instruct the latter to present it for acceptance in London, and to collect the proceeds at maturity in due course; (b) He may discount the bill with his banker, thereby obtaining its true present worth (i.e., its face value less discount for three months), and leaving it to the banker to present the bill for acceptance and to collect the proceeds in due course.

Let us assume that the second method is adopted and that the bill is sold to a banker on the other side. Now the question arises: What rate of exchange is the negotiating banker to apply to a three months' bill on London if the short exchange is \$4·865 per £1? He will apply a rate which will recompense him (a) for being out of his money for three months, i.e., for interest lost until the proceeds of the bill are credited to him on its maturity; (b) for the amount of stamp duty which his London agent will have to pay before he can obtain payment or otherwise deal with the bill on this side, (c) for the risk involved in dealing with an instrument which does not fall due for payment for some time, during which period the position of the parties may change unfavourably, and (d), for his trouble in handling the instrument, presenting it for payment and collecting the proceeds in due course.

To the banker in New York, a three months' bill on London is not as good as a bill involving immediate payment, hence he will expect to buy it at a *cheaper* price in dollars, i.e., at a *lower* rate of exchange. The banker will therefore build up the *long rate of exchange* which he will apply to the bill by *deducting* the various allowances from the short rate. He will first of all deduct discount at the rate *ruling in the place where the bill is payable*, i.e., London, this rate being applied for the reason that, if he should subsequently require to convert the bill into cash before its maturity, he must send it to his London agent for presentment for acceptance and rediscount, whereupon discount will be deducted by the agent at the rate ruling in London.

In this connection we must bear in mind that a bill is only a piece of paper, the value of which depends on the good faith and credit of the people who sign it; and this value is reflected in the rate at which the banker discounts the bill, the rate charged depending upon the credit and standing of the parties to the document. If the parties are first-class financial houses or banks, market rate at the place of payment will be charged, but otherwise the ordinary bank rate, which is usually higher than the market rate ruling at the same time and place.

Secondly, the New York banker will deduct $\frac{1}{2}$ per mille for the English adhesive stamp duty (1s. per £100), and, finally, he will allow another $\frac{1}{2}$ per mille for risk and contingencies. On this basis, the *long rate of exchange* to be applied to the three months' bill would be calculated somewhat as follows:

Short rate, New York on London	\$4·865
Less discount for three months at, say, 5 % (London rate) ..	·060813
Allowance for stamps, $\frac{1}{2}$ per mille	·002433
Allowance for contingencies, $\frac{1}{2}$ per mille	·002433
	<hr/>
	·06568
Three months' rate	<hr/> 4·79932
Nearest commercial rate: \$4·79 $\frac{15}{16}$.	

It is assumed in this example that the banker's profit is already included in the short rate, but, if this is not the case, a further $\frac{1}{32}$ to $\frac{1}{16}$ c. in the rate would be deducted by the banker in arriving at the long rate, making the latter about \$4·79 $\frac{7}{8}$. Furthermore, if the long bill were drawn payable three months' *after date*, the long rate would be based on the T.T. rate and *not* on the sight rate or short rate. (See page 513.)

Thus, by drawing a three months' bill for £1,000 in place of a sight bill, the creditor realises \$4,799 instead of \$4,865 by the former method. His position is no better if he forwards the bill for collection instead of discounting it, for, in such a case, he will be out of his money during the currency of the bill, and be required to pay the foreign stamp duty and the collecting banker's charges. Obviously, no creditor would be content to accept payment by long bill on this basis unless he were otherwise covered in the price at which the goods

were sold. In the majority of contracts for the sale of goods, the price quoted by the seller allows for the fact that the buyer will require three months' credit, and in such cases the creditor is not penalised by drawing at three months' date or sight for the exact amount of his invoice, plus any charges incurred on the buyer's behalf. But if no arrangement exists for the granting of credit, the seller is more likely to arrange with his debtor that he shall draw his three months' bill for an amount in sterling which, on negotiation, will yield approximately the same amount in dollars as he would obtain if a sight draft were drawn for the amount due. In such circumstances, he would calculate the amount of his long bill as follows:

Value of Goods	£1,000	0	0
Add three months' interest @ 5 %	12	10	0
„ Allowance for stamp duty, $\frac{1}{2}$ per mille ..	10	0	
„ Risk and contingencies, 1 per mille ..	1	0	0
„ Banker's profit, $\frac{1}{8}$ %	1	5	0
Amount of three months' bill on London ..	<u>£1,015</u>	<u>5</u>	<u>0</u>
Say, £1,016.			

If we assume that the sight rate remains at \$4·865, this bill for £1,016 would be sold at the three months' rate calculated above, viz., \$4·79 $\frac{21}{64}$, and would yield approximately the same amount in dollars as the creditor would have obtained if he had drawn for £1,000 at sight and sold at 4·865, i.e.:

$$1,016 @ 4\cdot79\frac{21}{64} = \$4,870$$

The principles here explained are further illustrated by the following examples:

Example 14.—Find the value to the creditor, and also the cost to the debtor, of a three months' trade bill for £715 9s. 3d. drawn on Paris, and indorsed Fcs. 125·25, bank discount in Paris 4 %. Allow for bank's profit at 1 per mille, and for stamps at $\frac{1}{2}$ per mille.

Face value of bill	=	£715·4625
Less Discount 3 mos. 4 %	7·1546	
Profit, 1 per mille	·7155	
Stamp, $\frac{1}{2}$ per mille	·3577	
	<hr/>	8·2278
		<u>£707·2347</u>

∴ Value to the creditor = £707 4s. 8d.

Cost to debtor = $715\cdot4625 \times 125\cdot25$
= Fcs. 89611·68

Example 15.—Find value to the creditor and cost to the debtor of a bank bill for Kr. 8,974, drawn in Copenhagen on England at three mos. Market discount 4 %, indorsed 18·35. Allow 1 per mille for profit, and $\frac{1}{2}$ per mille for stamps.

Face value of bill	= Kr. 8,974.
Less 3 mos. at 4 % ..	89·74
Profit, 1 per mille	8·974
Stamp, $\frac{1}{2}$ per mille	4·487
	<hr/>
	103·201
\therefore Value to creditor in Copenhagen	= Kr. <u>8,870·799</u>
Cost to debtor = $\frac{8974}{18\cdot35}$	= £489·046
	= £489 0s. 11d.

Calculation of Long Rates from Short Rates.—The reader who has followed the foregoing explanation and examples should now have no difficulty in understanding that the long rate of exchange—which unqualified term is generally understood to mean the *three months' rate*—is calculated from the short rate or T.T. rate by adding, or deducting, as the case may be, allowances for:

- (a) Interest for the time which must elapse before payment of the bill at the foreign *bank* rate for trade bills, but at the foreign *market* rate for bank drafts or first-class paper.
- (b) Foreign stamp duty, usually about $\frac{1}{2}$ per mille.
- (c) Risk and contingencies involved in waiting for the money, usually reckoned at about $\frac{1}{2}$ per mille.
- (d) Banker's profit or commission, if this is not already included in the short rate.

The calculation of the allowances is simple enough. The difficulty lies in ensuring that they are made in the *right direction*, but this difficulty will at once disappear if it is remembered that the long rate is always *cheaper* than the sight rate because it represents money in the future instead of money at once. Hence, if we are operating in this country, we apply to rates in *foreign* money, the oft-quoted maxim: "*The better the bill, the lower the rate,*" adding the allowances to the sight rate in foreign currency, and thus making the long rate the higher of the two. On the other hand, we *deduct* the allowances if we are dealing with a rate in sterling, making the sterling price of

the long bill lower than the price of a short bill. Thus the charges are always deducted from the short rate in calculating a long rate if the rates are expressed in the "*home*" currency, "*home*" here meaning England, or France, or Japan, or any other centre in which we imagine ourselves to be dealing at the moment.

Bankers' Profit or Commission.—This item requires special care if it is to be allowed for, since it is not always made in the same direction as the other charges. If a dealer is *buying* long bills expressed in a foreign currency and wishes to allow for a profit of, say, $\frac{1}{8}\%$, he must, of course, *add* this to the calculated rate before he effects the conversion into his own currency ("Buy high"). On the other hand, if he is selling a long bill and is working from a short rate in foreign money, he must *deduct* his profit ("Sell low"). The converse is true if the rates are in the dealer's home currency.

Days of Grace.—As has already been stated in Chapter II, all bills on this country, other than those on demand, at sight or which are overdue, take three days of grace before they are legally due for payment. It is therefore important in calculating interest on a British bill which has a certain number of days to run to allow for the three extra days before payment can be demanded. A similar allowance must be made in the case of bills on any other country which allows days of grace, e.g., Canada, since it may be taken for granted that the debtor will not usually pay a bill drawn upon him until the last possible moment.

"After Date" and "After Sight" Bills.—Great care is also required in applying a long rate to a bill of exchange payable at so many days or months *after sight*, i.e., after it is first seen by the drawee. In the case of a bill payable *after date*, the term begins to run from the date written on the instrument, so that the rate to be applied to such a bill is calculated directly from the T.T. rate, merely by making the requisite allowances, including interest for the unexpired period of the bill. In the case of a sight bill, however, the term does not begin to run until the *date of sighting*, and, in dealing with such a bill, therefore, the negotiating banker must obviously cover himself in respect of interest lost during the time which must elapse before the bill can be presented to the drawee. This time will necessarily vary according to the distance between the centres concerned, according to the date of the next outgoing mail, according as the mail is sent by a fast vessel, or by air, and so on.

Between London and New York, from eight to ten days must be reckoned for transmission, between London and Paris two

days,* London and Lisbon three days, and so on. But this additional allowance will be made only if the banker is calculating the rate to be applied to a sight bill from the T.T. rate, as is invariably the case in London, where practically all quoted rates are for T.T.'s. But in other centres, where short or cheque rates are regularly quoted, the allowance for interest lost during transmission will have been already made in the cheque rate or short rate, and, in such circumstances, the long rate for bills *after sight* is invariably calculated with the quoted cheque rate or short rate as the basis, interest being taken into account only for the period of the bill, and the period of transit being ignored.

Example 16.—Assume that the cheque rate in London on Paris is Fcs. 124·25 per £1, and that bank discount in Paris is 4 %. Allowing $\frac{1}{2}$ per mille for stamp duty, $\frac{1}{2}$ per mille for risk, and $\frac{1}{2}$ per mille for the negotiating bank's profit, calculate the long exchange to be applied by a London dealer in purchasing three months' after *sight* trade bills on Paris.

Cheque rate, London on Paris	.. ..	= Fcs. 124·25
Add 3 months' interest at 4 % per annum	=	1·2425
French stamp duty, $\frac{1}{2}$ per mille	.. }	= 0·1242
Allowance for risk, etc., $\frac{1}{2}$ per mille	.. }	
Bank's profit, $\frac{1}{2}$ per mille	.. ..	= 0·0621
		Fcs. <u>125·68</u> per £
Long rate on Paris = Fcs. 125·68 per £1.		

Example 17.—Market discount rate in London is 7 %, in Berlin 6 %. Assume that the London T.T. rate on Berlin is Mks. 20·56 per £1. Calculate the long rate for best paper, payable three months after *date*, allowing 1 per mille for stamp and risk.

T.T. rate, London on Berlin	.. ..	= Mks. 20·56
Add 3 mos. interest at 6 % (Berlin)	.. ..	= 0·3084
Allowance for risk and stamp duty	.. ..	= 0·0206
		Mks. <u>20·889</u>

Long rate = Mks. 20·89 per £1.

Example 18.—Buenos Aires quotes London short $47\frac{1}{2}$ pence per peso. Market discount rates, London 8 %, Buenos Aires $7\frac{1}{2}$ %. Allowing 1 per mille for stamp, etc., and $\frac{1}{8}$ % for the selling bank's

* I.e., by ordinary post. One day only is allowed if the remittance is forwarded by *air* mail.

profit, calculate the rate *charged* by a bank in Buenos Aires for three months' *sight* bills on London.

Short rate on London	.. .. .	=	47.5	pence.
Add Interest for 3 mos. at 8 % (Market rate)	.. .. .	=	.95	
Allowance for stamp, etc.	.. .. .	=	.0475	
			<u>48.4975</u>	
Deduct Bank's profit at $\frac{1}{8}$ %	.. .. .	=	.06	
			<u>48.4375</u>	..

Long rate = $48\frac{7}{16}$ pence per peso.

Example 19.—Assume that the London T.T. rate on Monte Video is $49\frac{3}{4}$ pence per peso, that bank discount in London is 5 %, in Monte Video 4 %. Allowing 1 per mille for stamp and risk, find the long rate on Monte Video for commercial bills payable three months after *date*.

London T.T. rate on Monte Video	.. .. .	=	49.75	
Less 3 mos. interest at 4 %	.. .. .	=	.4975	
Allowance for stamp and risk, $1\frac{0}{100}$	.. .. .	=	.0497	
			<u>.547</u>	
			<u>49.203</u>	

Long rate on Monte Video = $49\frac{13}{64}$ pence per peso.

The long rate is cheaper, i e., fewer pence are paid per peso.

Example 20.—New York short rate on London is $\$4.85\frac{1}{8}$ per £1. Discount in New York is 8 %, in London 7 %. Allowing, say, 2 per mille for contingencies and stamp, find the New York rate on London for bills at 3 months' sight.

As we are operating in New York, rate is in the *home* currency, so deduct charges for the cheaper rate:—

Sight rate	.. .. .	=	\$4.8512	
Less 3 mos. int. at 7 %	.. .. .	=	.0849	
Allowance for stamp, etc.	.. .. .	=	.0097	
			<u>.0946</u>	
			<u>\$4.7566</u>	

Say, $\$4.75\frac{21}{32}$ per £1.

The cheaper bill sells for less dollars per £1.

Example 21.—New York cable rate on London is 4.865, and interest on banker's funds in London is 4 %. Assuming that the time of mail from New York to London is 10 days, what rate would a New York banker apply on the purchase of (a) a cheque on London;

(b) a 60 days' sight draft on London, if he allows his profit at 1 per mille and stamp duty on long bills at $\frac{1}{2}$ per mille?

Cable rate on London	..	..	..	\$4·865
Less 10 days @ 4 %	..	..	..	·00533
Profit at 1 per mille	..	..	..	·004865
				<hr/>
				·010195
Demand rate on London	..	..		\$4·854805
				<hr/>
				Say, \$4·85 $\frac{31}{32}$.
Deduct 63 days @ 4 %	..	..	..	·033518
Stamps @ $\frac{1}{2}$ per mille	..	..	..	·002427
				<hr/>
				·035945
60 day-rate on London	..	..		<u>\$4·818860</u>
				<hr/>
				Say, \$4·81 $\frac{7}{8}$ per £1.

Another method is to take the cable rate and to deduct therefrom 73 days' interest and the allowance for stamp duty, viz.:—

New York cable rate on London	..	..		\$4·865
Less 73 days' interest @ 4 %	..	..	..	·03892
Stamp duty @ $\frac{1}{2}$ per mille	..	..	..	·002432
Banker's profit @ 1 per mille	..	..	..	·004865
				<hr/>
				·046217
				<u>\$4·818783</u>
				<hr/>

Say, \$4·81 $\frac{7}{8}$ per £1.

If the banker is asked to *sell* a demand draft or 60 days' bill on London in sterling, he makes the allowances for interest and stamp duty in the usual way, but he *adds* the amount of his profit (see Example 34).

Example 22.—At what rate would you purchase from a customer a three months' after date bank bill on Milan for lire 150,000 if the market quotation in London for T.T.'s on Milan is 92·15–92·20, and market rates of discount are: $5\frac{1}{4}$ % p.a. in London, and 6 % p.a. in Milan?

Allow for Italian stamps $\frac{1}{2}$ per mille and for your profit 1 per mille. Neglect English stamps and assume that the bill has exactly three months to run.

Market T.T. rate, London on Milan (buying)	..	92·20	lire.
Add three months' interest @ 6 %	..	..	1·383
Stamp @ $\frac{1}{2}$ per mille	..	..	·0461
Profit @ 1 per mille	..	..	·0922
			<hr/>
			Long Rate = <u>93·7213</u> „

Say, lire 93·72 $\frac{1}{2}$ per £1.

Example 23.—At what rate of exchange would a London dealer purchase from a customer a draft on New York at 90 d/s, if the cheque rate on New York is 4·86 and the discount rate in New York is 5 %. There are no days of grace or stamp duties in New York, and discount is, in practice, calculated on 360 days to the year.

Cheque rate	.. .. .	\$4·86
Add 90 days' interest @ 5 %		
	$\frac{4 \cdot 86 \times 90 \times 5}{360 \times 100}$	= ·0608
Risk, etc., 1 per mille	.. .. .	·0048
		<u>\$4·9256</u>
Say, \$4·92 $\frac{9}{16}$ per £1.		

OBSERVE most carefully the calculation of discount on bills on America on the basis of 360 days to the year.

Example 24.—A customer has to draw in U.S.A. dollars at 90 days' sight on a bank in San Francisco, under a Letter of Credit, such draft having to be accompanied by full set of shipping documents. He presents his draft and documents, apparently in good order, to you, and asks you to negotiate the draft. Given the following data, what rate would you quote him?

Market discount rates in London 5 $\frac{1}{4}$ %; in San Francisco 5 %; U.S.A. stamp duty, negligible; agent's charge for handling documents $\frac{1}{2}$ per mille, bank's profit $\frac{1}{16}$ %; transit from London to San Francisco 14 days; London market quotation for T.T. San Francisco 4·86 $\frac{1}{2}$ –4·86 $\frac{5}{8}$. There are no days of grace.

Buying rate for T.T. on San Francisco	.. .. .	= \$4·86625
Add Bank's profit @ $\frac{1}{16}$ %	.. .. .	= ·00304
Agent's charges @ $\frac{1}{2}$ ‰	.. .. .	= ·00243
Discount charge, 104 days @ 5 %	.. .. .	= ·07029
(New York terms: 360 days = 1 year)		<u>\$4·94201</u>

∴ Negotiating rate to be applied is \$4·94 $\frac{13}{64}$ per £1.

Example 25.—On the 22nd November, 1929, a customer presents to you for discount a bill for Fcs. 125,000, payable in Paris and due on the 1st January, 1930. If the T.T. rate on Paris is quoted in the London market as 124·15–124·25, at what rate would you discount the bill, allowing $\frac{1}{16}$ % as your profit, and with how much sterling

would you credit the customer's account for the proceeds? Paris discount rate $4\frac{1}{2}\%$. There are no days of grace in Paris.

Market buying rate for French T.T.	.. .. = Fcs.	124·25
Dealer's profit @ $\frac{1}{16}\%$	.. .. =	·07766
Dealer's buying rate for T.T.	.. .. =	124·32766
Add allowance for interest, viz., 40 days @ $4\frac{1}{2}\%$	=	·61312
"Tel quel" rate to be applied	.. .. = Fcs.	<u>124·94078</u>

∴ Rate to be applied = say, Fcs. 124·94 per £1.

∴ Sterling equivalent = $\frac{£125,000}{124·94}$, say £1,000.

To Find Long Rates at Two Centres.—A useful arithmetical exercise is to calculate the long rates in two centres when rates in each are given. Great care has to be taken to see that the correct discount rate is used, and also to allow the charges in the right direction.

Example 26.

London on Paris T.T. rate is Fcs. 124·25.

Paris on London T.T. rate is Fcs. 124·20.

Bank discount in Paris is 5 %, in London 4 %.

Allowance for risk $1\frac{1}{2}$ per mille, stamp $\frac{1}{2}$ per mille.

Find long rates in both centres for trade bills payable three months after date.

London on Paris T.T. rate	.. .. = Fcs.	124·25
Add 3 mos. int. at 5 % (Paris)	.. .. =	1·5531
Allowance for risk and stamp at 2 per mille	=	·2485
	Fcs.	<u>126·0516</u>

Long rate on Paris = Fcs. 126·06 per £1.

Paris on London T.T. rate	.. .. = Fcs.	124·20
Deduct 3 mos. int. at 4 % (London)	.. .. =	1·2420
Allowance for stamp and risk, 2 per mille	.. .. =	·2484
		<u>1·4904</u>
	Fcs.	<u>122·709</u>

Long rate on London = Fcs. 122·71 per £1.

We add charges in London, but deduct them in Paris, because, in London, Fcs. 126·06 are cheaper to buy per £1 than Fcs. 124·23,

whereas, in Paris, it is cheaper to give Fcs. 122·71 per £ than to give Fcs. 124·20.

Also:

We add charges in London, because

More francs should be received in three months' time than if they were received now; and

We deduct them in Paris, because

Less francs will be paid to-day for sterling due in three months' time than if it were due to-day.

Example 27.

London on Rio, T.T. rate is $5\frac{3}{4}$ pence per milreis.

Rio on London, ,, ,, $5\frac{15}{16}$,, ,, ,,

Market discount rates, London $5\frac{1}{2}$ %, Rio $7\frac{1}{2}$ %.

Bank discount rates, London 6 %, Rio 8 %.

Allowance for risk and stamp, say, 2 per mille.

Find long rates for trade bills payable 3 mos. after date.

London on Rio, T.T. rate	..	..	..	=	5·75
Deduct 3 mos. interest at 8 %	..	..	..	=	·1150
Allowance for risk and stamp at 2 per mille	..	..	..	=	·0115
					<hr/>
					·1265
					<hr/>
					5·6235

London long rate = $5\frac{5}{8}$ pence per milreis.

Rio on London, T.T. rate	..	..	..	..	=	5·9375
Add 3 mos. interest at 6 %	..	..	..	..	=	·0891
Allowance for stamp and risk at 2 per mille	..				=	·0119
						<hr/>
						6·0385

Long rate on London = $6\frac{3}{64}$ pence per milreis.

Note carefully that when rates are quoted in *the same way* in both places, then if we add charges in one place we must deduct them in the other. If, however, the rates are quoted in different ways, i.e., one in sterling and the other in currency, we add or deduct, as the case may be, *in both cases*. None of these calculations should cause any difficulty if it is clearly understood that, in whichever place we may be dealing, that rate of exchange is dearer which compels us to give more of the home currency, or the currency of the place in which we consider ourselves to be, for each unit of foreign currency which we buy.

Short Rates from Long Rates.—Although of little practical utility, another useful theoretical exercise is to reverse the process illustrated above, and calculate the short rate if the long rate is given. This simply involves an application of the foregoing principles in the reverse order, that is to say, wherever charges are added in the above examples, they must now be deducted, and so on.

Example 28.—Long rate for bank paper on Paris in London is Fcs. 125·68 per £1. Market discount in Paris is 4 %. Allowing 1 per mille for risk and stamp and $\frac{1}{2}$ per mille for bank's profit, calculate the short rate for *selling* francs.

Long rate on Paris	..	..	..	=	Fcs. 125·68
Deduct 3 mos. int. at 4 %	..	..	..	=	1·2568
Allowance for stamp, etc., 1 per mille				=	·1257
Bank's profit, $\frac{1}{2}$ per mille	..	..		=	·0628
					<hr/>
					1·445
				Fcs.	<u>124·235</u>

Short rate = Fcs. 124·23 $\frac{1}{2}$ per £1.

The short rate is lower—"The better the bill, the *lower* the rate."

NOTE.—If it were required to calculate the short rate for *buying* francs, the bank's profit would be *added* and *not* deducted.

A comparison of this example with Example 16 on page 514 will indicate that the calculation of the short rate from the long rate by the method illustrated is not entirely accurate, for as the calculation is intended merely to reverse the process of the earlier example, the resulting short rate should be *actually* and not approximately Fcs. 124·25 per £1. The slight difference arises because the interest and charges in the reduction from long to short are worked on the long rate (which, be it noted, already *includes* interest and charges) instead of on the short rate. It would therefore be more accurate to

work the interest on the long rate by the formula $\frac{rt}{100 + rt}$, where r is the rate per cent. and t the time in years or fraction of a year. This would give the interest to be deducted from the long rate in the example as $125·68 \times \frac{1}{101} = 1·2443$, but even here there is a very slight error on account of the inclusion of stamp duty.

The method given is, however, sufficiently accurate for all practical purposes.

Example 29.—Assume that the Buenos Aires on London long rate (best paper) is $47\frac{3}{4}$ pence per peso, and that market discount in London is 8 %. Allowing 1 per mille, find the short rate.

Long rate on London	=	47.75 pence.
Deduct 3 mos. int. at 8 %	=	.955
Allowance, 1 per mille	=	.048
	—	1.003
		<u>46.747</u> ..

Short rate = $46\frac{3}{4}$ pence per peso.

In Buenos Aires pence are foreign money, so the same maxim applies as in Example 22.

Example 30.—The London long rate for best paper on Switzerland is reckoned to be Fcs. 25.4625 per £1. In Berne bank discount rate is $9\frac{1}{4}$ %, market discount is 9 %. In London market rate is $5\frac{1}{2}$ %. Allowing for stamp and risk, say, 1 per mille, find the cheque rate on Switzerland.

Long rate for best paper	=	Fcs. 25.4625 per £1.
Less 3 mos. interest at 9 % market rate	=	.5729
Allowance for stamp, etc.	=	.0255
	—	.5984
		<u>Fcs. 24.8641</u>

Cheque rate = Fcs 24.86 $\frac{1}{2}$ per £1.

Settlement by Debtor's Long Bill.—Although the practice is becoming increasingly less common, remittances from certain countries are made by means of *long* bills payable in the creditor's country and currency. The amount of such a bill is determined by precisely the same considerations as we have discussed in relation to long bills drawn by the creditor. If the creditor has agreed to accept payment by long bill, and to wait for his money until the bill matures, the debtor has merely to purchase from his banker a draft of the required term and amount, paying for it at the long rate of exchange applicable to the class of remittance concerned. If, on the other hand, the debt due to the creditor is payable *immediately*, the face value of the long bill or long bills remitted by the debtor must be sufficient to cover the amount owing, as well as the amount of discount and other charges incurred by the creditor on the conversion of the bills into cash. This will be clear on considering the following illustration:—

A London merchant owes a French creditor a debt of 124,000 francs, payable *immediately*. The short rate of exchange is 124, and con-

sequently a sight bill for the requisite amount would cost £1,000. If, however, long bills are sent, the total amount in francs must be such that the French creditor can obtain 124,000 francs by immediately discounting the bills and paying any necessary charges. As the long rate on France is *higher* than the short rate by the amount of the allowance for interest and charges, it is clear that £1,000 invested in bills at the long rate should yield the creditor approximately the same as £1,000 invested in a sight draft.

For example, with a short rate of 124 the long rate might be 125·5, in which case £1,000 would purchase 125,500 francs, 1,500 francs more than could be obtained by the short rate for the same amount in sterling. This additional amount of 1,500 francs would just about cover the cost to the creditor of discounting, stamp duty and other charges.

Clearly, there is little advantage to be gained by using long bills for ordinary trade remittances, and such bills are rarely *sold* by banks in this country, although they are still issued to order in considerable quantity in certain foreign countries. Moreover, parcels of long bills are frequently sent by bankers in one centre to their agents or correspondents in another either to pay off an overdraft, or to meet accruing obligations, or to establish a credit balance in the currency concerned.

With this explanation the following illustrative examples should be clear to the reader. Banker's profit is charged as in the case of sight drafts, and stamp duty is allowed for at the average rate of $\frac{1}{2}$ per mille. As has already been stated on page 520, some slight variation may be noted in the amounts—whether gross or net—upon which interest and charges are calculated. The resulting differences are, however, practically negligible and no sacrifice of principle is involved.

It should be noticed that these charges have to be paid by the buyer of the bill, so that whatever the way in which the rate of exchange is quoted, these charges *increase* the amount which he has to pay in his *own* currency for the remittance.

Example 31.—I owe Fcs. 30,000, to be paid in three months in Paris. What is the cost of a three months' draft for payment of that amount if the exchange is Fcs. 125·15, 3 mos., discount 5 %, my bank's profit 1‰, and French stamp duty $\frac{1}{2}$ ‰ ?

Cost of Fcs. 30,000 @ Fcs. 125·15 ..	=	£239·712
Profit, 1 per mille	=	·240
Stamp, $\frac{1}{2}$ per mille	=	·120
		<hr/>
		£240·072

Total cost = £240 1s. 5d.

No interest is taken into account, as the money is not due for three months.

Example 32.—What is the cost in London of 36,000 rupees due immediately in Bombay, if 4 months' bills are sent, and the rate quoted is 1s. 6d., discount in Bombay being 5 %, and allowances for bank's profit, etc., $1\frac{1}{2}$ per mille?

(a) Amount to be paid	..	..	=	36,000	rupees.
Interest @ 5 % for 4 mos.	..	..	=	600	
4 mos. bills required for	..	..	=	36,600	
Profit, etc., $1\frac{1}{2}$ per mille	..	..	=	54·9	
				<u>36,654·9</u>	„

$$\text{Cost in sterling} = £36,654·9 \times \frac{18}{240} = £2,749·1175$$

$$= £2,749 \text{ 2s. 4d.}$$

(b) 36,000 rupees at 1s. 6d. cost	..	..	=	£2,700	
Interest for 4 mos. @ 5 %	..	..	=	45	
				<u>2,745</u>	
Profit, etc., $1\frac{1}{2}$ per mille	..	..	=	4·1175	
				<u>£2,749·1175</u>	
					$= £2,749 \text{ 2s. 4d.}$

Example 33.—Find cost in Paris of £1,000 due at once in London if a three months' bill is sent and the rate is 125·10, discount in London 4 %, bank's profit 1 per mille, stamps $\frac{1}{2}$ per mille.

£1,000 at 125·10 costs	..	..	..	=	Fcs. 125,100·00
Add interest for 3 mos. @ 4 %	..	..	=	1,251·00	
Amount of three months' bill	..	..	=	<u>126,351·00</u>	
Profit, 1 per mille	..	..	=	126·35	
Stamp, $\frac{1}{2}$ per mille	..	..	=	63·175	
Total cost	..	..	=	<u>Fcs. 126,540·525</u>	
Say, 126,540·53.					

To make an immediate payment of £1,000 in London, it costs the Parisian debtor Fcs. 126,540·53. For this sum he obtains a 3 months' bill in sterling for £1,010, i.e., such an amount as will yield £1,000 to the creditor, when it is discounted at 4 % on its arrival in London. If the debtor were content to purchase a bill for £1,000 at the 3 months' rate of 125·10, he would pay considerably less, but he

would not be credited with £1,000 in London for 3 months, during which time interest would be charged against him in account. He therefore pays an extra 1,440·53 francs, so as to obtain credit in London for approximately £1,000 *immediately*. He could, of course, achieve the same result by purchasing a sight draft, costing him approximately the same sum in francs, less a slight difference on account of the lower stamp duty.

Example 34.—What would a New York banker charge for a 60 days' sight draft on London for £1,000, if rates and charges are as in Example 21?

Cable rate on London	==	\$4·865
Less 73 days' interest @ 4 %	=	·03892
Stamp duty @ $\frac{1}{2}$ per mille	=	·002432
		<hr/>
		·041352
		<hr/>
		\$4·823648
Add profit at 1 per mille	=	·004824
		<hr/>
		<u>\$4·828472</u>

Say, $4\cdot82\frac{55}{64}$ per £1.

Charge for £1,000 draft on London at 60 days' sight:—

$$\$1,000 \times 4\cdot82\frac{55}{64} = \$4828\cdot60.$$

Purchase of Long Bills for Varying Terms.—In the tables of rates of exchange reproduced in Chapter VII, the rates for long bills, wherever they appear, apply to bills having certain fixed periods to run, viz., three months, 90 days, 60 days, and so on. A little consideration will make it clear that the unexpired period of many long bills which are brought to a banker for sale or negotiation will not correspond with the period for which the rates are available. Many bills will have already run some part of the term for which they are drawn, whereas others will be drawn for longer periods than those to which the quoted rates apply.

In those centres which make a practice of quoting long rates, the quotations will apply only to the most common type of bill which the bankers have to handle, e.g., 60 days in New York, and as it would be almost impossible to quote prices to cover the varying periods of all the bills dealt with, adjustments have to be made at the time of sale to compensate for the interest gained or lost, as the case may be.

There are two ways of dealing with the necessary allowance:—

- (a) In most cases the *price* at which the bill is sold, that is, the rate of exchange per unit, is increased or decreased by the amount of interest to be allowed.
- (b) Another method sometimes used is to calculate the value of the bill at the quoted rate available, whether that is a short rate or a long rate, and to make a separate adjustment for the interest on the amount so calculated.

In the latter case we adjust the *principal*, but retain the same price, whereas in the former case we adjust the *price* and keep the principal the same.

“Tel Quel” Rates.—A rate of exchange adjusted by the *first* method is known as a “*tel quel*” rate, or an “all in” rate, because it is made to fit the bill “such as it is”, and must be clearly distinguished from the adjustment of the principal made by the *second* method. The latter is *not* an example of a *tel quel* rate.

As in the case of the calculation of long and short rates, the *tel quel* rates should, where possible, be calculated to the nearest “step” by which the exchange varies, e.g., to the nearest $\frac{1}{2}$ centime for France, $\frac{1}{64}$ cent for U.S.A., etc. Also great care must be used to ensure that the correct discount rate is used, i.e., the *foreign bank rate* for ordinary trade bills, and the *foreign market rate* for first-class financial paper or bank drafts.

In those centres where no long rates at all are published, rates must be specially calculated by the negotiating banker to cover each different type of bill with which he has to deal, and all such rates may, of course, be properly regarded as *tel quel* rates, whether they are the usual long, or three months, rates or not.

As in the calculation of long rates, it is essential in fixing *tel quel* rates for bills payable *after sight*, to make due allowance for any time lost in transmission to the place of payment, and also for days of grace, if any, since, during any such period, the purchaser will be out of his money. Consequently in applying a *tel quel* rate to a 60 days’ sight bill on New York, a London banker would include interest for 8 or 10 days, i.e., the time required for transmission by mail and presentment for acceptance.

Remember also that a two months’ bill is better than a three, four, or five months’ bill, and that a four months’ bill is not as good as a bill due in three months, because the nearer the date on which the money can be obtained, the more valuable the bill is to the

holder. In fact, so strong is the preference for a quick turnover, that three months' bills are discountable at easier rates than bills for longer periods; i.e., the latter are *relatively* cheaper to buy and less remunerative to discount or to sell, for the seller allows the buyer interest at a rate slightly higher than the foreign bank rate. For the reasons given it is easy enough to make the allowance correctly, as the buyer always pays more of his "home" currency for a better bill.

Example 35.—Foreign Rate.—Find *tel quel* rate for buying a two months' bank bill on Paris: London on Paris cheque rate 124·25, your profit $\frac{1}{8}$ %, other allowances 1 per mille. Market rate in Paris, 8 %.

Short rate	..	..	..	..	= Fcs. 124·25
Add two mos. @ 8 %	..	..	..	..	= 1·657
Allowances, 1 per mille	..	..	..	..	= ·124
Profit	..	..	..	..	= ·155
Two months <i>tel quel</i>	..	..	..	..	= <u>Fcs. 126·19</u> per £1.

The two months' rate is cheaper, i.e., higher, than the cheque rate, so we *add* allowances.

Example 36. Rate in "Home" Currency.—Find *tel quel* rate for a five months' trade bill on London in Berne, three months' bills being quoted at Fcs. 25·45–25·55 per £1. Bank discount in London $5\frac{1}{2}$ %, Market discount $5\frac{1}{4}$ %.

The rate for trade bills is 25·45—the cheaper rate in Switzerland (less of their units per £1). The discount in London for trade bills will be at the Bank rate of $5\frac{1}{2}$ %.

Three mos. on London	..	..	..	..	= Fcs. 25·45
Two mos. @ $5\frac{1}{2}$ % per annum	..	..	..	..	= ·233
					Fcs. <u>25·217</u>

\therefore Five mos. *tel quel* = Fcs. 25·21 $\frac{3}{4}$ per £1.

The five months' bill is cheaper than a three months' bill, so that it costs *less* francs in Switzerland.

Example 37. Foreign Rate.—Buenos Aires quotes London 90 days at 48 pence per peso. Find rate for a five months' bank bill on England, bank discount in London $5\frac{1}{2}$ %, market rate being $5\frac{1}{4}$ %.

Three months' rate	..	..	..	= 48	pence per peso.
Two months' (or 60 days) @ $5\frac{1}{4}$ %	..	..	..	= ·42	
				<u>48·42</u>	,, ,,

The bill is cheaper, so that the peso purchases more pence.

Example 38. "Home Currency."—Find rate for a four months' bill on London in Paris, 3 mos. rate on London = 125·35. Discount in London 5 %.

Three mos., Paris on London	..	=	Fcs. 125·35
One month @ 5 %	..	=	·5223
			<u>Fcs. 124·8277</u>

Four months *tel quel* = Fcs. 124·82 per £1.

The cheaper bill costs *less* francs per £1 to the Paris merchant.

Second Method—Adjust Principal.—In certain cases—more particularly when he is not in competition—the negotiating banker may adopt the second method, and arrive at the present worth of a bill in foreign currency by converting its face value at the quoted rate, and making the necessary allowances on the resulting capital amount, as in the following examples:

Example 39.—Rate for bank cheques on Paris is 124·25. Market discount in Paris is 6 %, your bank's profit is $\frac{1}{8}$ %, other allowances on long bills, say, 1 per mille. What would you give for a three months' trade bill on Paris for 12,922 francs, due in one month?

(a) 12,922 francs on Paris @ cheque rate	=	£104 0 0
Deduct one month's int. @ 6 %	.. =	10 5
Allowances, 1 $\frac{0}{100}$	.. =	2 1
Profit, $\frac{1}{8}$ %	.. =	2 7

		<u>15 1</u>
Value of bill	.. .. =	<u>£103 4 11</u>

(b) Amount of bill	.. .. =	Fcs. 12,922
Less one month's int. @ 6 %	.. =	64·61
Profit @ $\frac{1}{8}$ %	.. .. =	16·15
Risk @ 1 $\frac{0}{100}$	.. .. =	12·92
		<u>93·68</u>
		<u>12,828·32</u>

$$\text{Value at cheque rate} = \frac{12828 \cdot 32}{124 \cdot 25} = \text{£}103 \cdot 246$$

= £103 4s. 11d.

Example 40.—Three months' rate for trade bills in London on Spain is 35·00 pesetas per £1. Madrid bank rate 8 %, market rate 7½ %. London bank rate 5½ %, market rate 5¼ %. Find value of a four months' trade bill on Spain for 3,570 pesetas.

(a) 3,570 pesetas due in Madrid in 3 mos. are worth:—

$$\begin{array}{rcll} \frac{3570}{35} & \dots & \dots & = \text{£}102 \ 0 \ 0 \\ \text{Less interest for 1 month at 8 \%} & \dots & \dots & = \underline{\quad 13 \ 7 \quad} \\ \text{Value to English buyer} & \dots & \dots & = \underline{\underline{\text{£}101 \ 6 \ 5}} \end{array}$$

(b) Amount of 4 months' bill would be $\dots = 3,570$ pesetas.
 Interest for 1 month at 8 % $\dots = \underline{23 \cdot 8}$
 Amount to be paid for at 3 mos. rate $\dots = \underline{3,546 \cdot 2}$ „

$$\text{Cost} = \frac{3546 \cdot 2}{35} = \text{£}101 \ 6\text{s. } 5\text{d.}$$

Example 41.—What would a dealer in Paris give for a two months bill on London for £100, if the three months' rate is 122·50, discount in London 7 %, and in Paris 6¼ %?

In Paris a 3 mos. bill on London for £100 at
 122·50 is worth $\dots = \text{Fcs. } 12,250$
 Interest at 7 % for 1 month at London discount
 rate $\dots = \underline{71 \cdot 46}$
 \therefore A two months' bill on London would realise $\dots = \underline{\underline{\text{Fcs. } 12,321 \cdot 46}}$
 which is equivalent to a rate of 123·21 per £1.

Example 42.—A banker in Monte Video is offered a 120 days' bill on London for £1,000. What rate should he apply if the 90-day rate is 50·25, discount in London 7 %, and in Monte Video 7¼ %?

In Monte Video a 90 days' bill on London
 for £1,000 at 50·25 pence per peso is worth
 $\frac{1000 \times 240}{50 \cdot 25} \dots = 4,776 \cdot 12$ pesos
 Interest at 7 % for one month on this bill $\dots = \underline{27 \cdot 86}$
 \therefore A 120-day bill on London is worth $\dots = \underline{\underline{4,748 \cdot 26}}$ „

I.e., a *worse* bill is worth less to a seller in Monte Video.

This is equivalent to a rate of $\frac{1000 \times 240}{4748 \cdot 26}$ pence per peso = 50·54.

Both rates, 123·21 and 50·54 in the last two examples, can be easily obtained by the second method, as explained below.

In the foregoing examples, the interest has been calculated for periods of one or two months, but most bills differ from the quoted periods by a given number of days, and, in such cases, the interest should be calculated by the “third, tenth and tenth rule” given in a previous chapter.

Example 43.—Find the cost of a bill on Italy for lire 21,458, due on the 30th of November, purchased in London on the 8th of August. Exchange at 93·70 per £1 for three months’ bills. Discount in Rome = 5 %.

Bill for lire 21,458 due in three months at 93·70	..	=	£229	0	2
Interest for 22 days at 5 % = ·6902 (see below)	..	=		13	9
Cost .. .. .	..	=	<u>£228</u>	<u>6</u>	<u>5</u>

	229·008
	<u>·22</u>
	458·0
	<u>4580·1</u>
	1 = ·50381
	$\frac{1}{3}$ = ·16794
	$\frac{1}{10}$ of $\frac{1}{3}$ = ·01679
$\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{3}$	= ·00168
	<u>·6902</u>

The same result can be obtained by working in currency, as in the example above.

Parcels of long bills payable abroad usually include bills whose periods to maturity differ from the quoted usance, and also from one another. In such cases, it is necessary to make an allowance for interest on each bill, but time may be saved if the working is done as in the following example:—

Example 44.—Find the cost of the following bills on Berlin, purchased in London on the 8th of August, due on the dates shown. Discount in Berlin 4 % per annum. Rate for 3 mos. bills is 20·13

	Bill.	Date due.	(a).	(b).
Mks.	5,000	21st Oct.	18	90,000
„	2,500	30th „	9	22,500
„	7,520	2nd Nov.	6	45,120
„	10,250	5th „	3	30,750
„	<u>25,270</u>			<u>188,370</u>

$$20 \cdot 64 = \text{Interest} = \frac{188370}{365} \times \frac{4}{100} = \frac{1506960}{73000}$$

Mks. 25,290·64

$$\begin{aligned}
 &= 15 \cdot 070 \\
 &\quad 5 \cdot 023 \\
 &\quad \cdot 502 \\
 &\quad \cdot 050 \\
 &\quad \hline
 &\quad 20 \cdot 645 \\
 &\quad \cdot 002 \\
 &\quad \hline
 &\quad 20 \cdot 643
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost} &= \frac{25290 \cdot 64}{20 \cdot 13} = \text{£}1,256 \cdot 366 \\
 &= \text{£}1,256 \text{ 7s. 4d.}
 \end{aligned}$$

Method: In column (a) insert days short (or over) the quoted period. In column (b) insert the product of the number of days \times amount of bill. Add, and find the interest as shown. As all are due in less time they cost more, so the interest is added to the principal, i.e., the total amount of all the bills.

The working explains itself. For example, interest on the first bill $= \frac{500 \times 18}{365} \times \frac{4}{100}$, but instead of doing this separately for each bill, we first of all find the product of the days and amount in each case, and use the total for the calculation. If any of the bills are over the date, deduct the product of the amount \times the number of days from the sum of the others.

Calculation of Long Rates and “Tel Quel” Rates from Forward Rates.—Competition for business nowadays forces exchange dealers to quote the finest possible rates for any business offered to them, and often a better long rate or *tel quel* rate can be quoted by basing the calculation on the price at which the currency can be *sold forward* for the maturity of the bill, and on the loss of

interest, at the home rate, on the sterling which must be paid at once for the bill.

If the foreign interest rate is lower than the home interest rate this method cannot be used, as it would obviously be to the customer's disadvantage. But if the foreign interest rate is higher than the home rate and the forward margin does not absorb all the difference (as it seldom does), then the method may be applied with advantage to the customer, as is illustrated in the following example:—

Example 45.—What rate would a bank dealer apply to a bill at 90 days' sight on New York (a) if he bases his calculation on the forward rate for dollars; (b) if he calculates in the usual way?

Assume that the London on New York T.T. rate is 4·85; discount in London is 5 %, in New York (for similar bills), 6 %; the three months' forward margin on New York is $\frac{3}{4}$ cent discount; the cheque margin is $\frac{3}{8}$ cent discount, and the time of transit to New York, 8 days.

“Tel quel” rate based on Forward Price.

T.T. rate	=	\$4·85
Allow 3 months' forward rate + 8 days, say, $\frac{13}{16}$ cent	=	·008125
		<u>\$4·858125</u>
Interest on the sterling for 98 days @ 5 %, London terms (365 days)	=	·06521
		<u>\$4·923335</u>

∴ Neglecting stamps, brokerage, and profit, rate to be applied is, say, \$4·92 $\frac{21}{64}$ per £1.

“Tel quel” rate based on Spot Rate and Foreign Interest.

T.T. rate	=	\$4·85
Cheque margin (allowance for time in transit) ..	=	·00375
		<u>\$4·85375</u>
Interest for 90 days @ 6 %, New York terms (360 days)	=	·072806
		<u>\$4·926556</u>

∴ Neglecting extras as above, rate to be applied is, say, \$4·92 $\frac{21}{32}$ per £1.

If the purchase is made on the basis of the first method, the banker

must be prepared to hold the bill until maturity, since, if he were pressed for funds and was compelled to re-discount during the bill's currency, he would, of course, have to re-discount in New York at 6 % p.a., and, by so doing, he would lose part of the difference between the New York interest rate and the London interest rate *plus* the forward margin.

CHAPTER XXII

EXCHANGE DEALING

THE arithmetical operations arising from ordinary exchange dealing, i.e., buying and selling foreign currency, are of the simplest possible nature, since they merely involve conversions from one currency to another. In practice, the majority of such conversions are effected with great rapidity by calculating machines, and the only points of difficulty arise in the application to the particular transaction concerned of the correct rates, buying or selling as the case may be, and in adequately and correctly allowing for all expenses which may be involved.

It is obviously of the first importance that, in calculating the rates of exchange at which he is prepared to operate, or at which he proposes to operate, the dealer should accurately take into account all charges which he has to incur, such as brokerage, postages, telephone calls, telegrams, cables and foreign agents' commission, together with interest, if any, lost or gained on the funds involved.

Interest must be allowed at the correct rate for each day that the bank is out of its funds, or for each day that it has control of funds. Commission or profit must be reckoned, where necessary, for the bank's agent in another centre who is required to execute a purchase or a sale for account of the operating banker. Even though such commission or profit may not be chargeable by the agent as a separate item on a given transaction, it must not be overlooked that there may be a reciprocal arrangement for charging, say, $\frac{1}{8}$, $\frac{1}{4}$, or $\frac{1}{2}$ per mille on the turnover of the operating bank's foreign currency account, and such a charge must, of course, be allowed for by a dealer who is working on a fine margin of profit.

Special care is required in connection with brokerages, since these are usually of very small amount "in the rate," but may be considerable on a deal of any importance. The following table gives the list of brokerages payable in London at the time of writing on the most important currencies, but it must be understood that the rates

are in no sense fixed. In fact, since the disappearance of the Association of Foreign Exchange Brokers, the tendency in London is for brokerage to be subject to negotiation between dealers and brokers, the rates being cut and manipulated mainly according to the competition for business in the currency concerned.

LIST OF BROKERAGES PAYABLE IN LONDON

August, 1929.

CURRENCY	BROKERAGE (paid by each side unless otherwise stated)	In the rate, EQUIVALENT TO
Dollars	13s. 4d. per \$100,000	$\frac{1}{4}$ cent
Paris	10s. per Fcs. 1,000,000	$\frac{1}{2}$ centime
Paris Fwd.	7s. per Fcs. 1,000,000	$\frac{1}{2}$ centime
Brussels	£1 10s. per Belgas 1,000,000	·18 pts.
Brussels Fwd.	£1 per Belgas 1,000,000	·12 pts.
Italy	15s. per Lit. 1,000,000	·63 centesimi
Italy Fwd.	10s. per Lit. 1,000,000	·42 centesimi
Spain	5s. per Ptas. 100,000	·187 centavos
Holland	9s. 2d. per Fls. 100,000	·067 cents
Switzerland	4s. per Fcs. 100,000	·125 centimes
Germany	6s. per Rm. 100,000	·125 pfennige
Stockholm		
Copenhagen } .	7s. 6d. per Kr. 100,000	·125 ore
Oslo		
Helsingfors .	3s. per Fm. 100,000	·056 finmarks
Vienna	5s. per Sch. 100,000	·30 groschen
Prague	4s. per Kr. 100,000	·05 kronen
Bucharest	15s. per Lei 1,000,000	·43 lei
Athens	5s. per Dr. 100,000	·33 drachmæ
Buenos Aires	£1 per M/n 100,000	·005 pence
Rio de Janeiro .	12s. 6d. per Rs. 100,000	·0015 pence
Egypt	$\frac{1}{3}$ % Divisible	$\frac{1}{3}$ d.
Japan	$\frac{1}{2}$ % paid by seller	$\frac{1}{2}$ d.
India	$\frac{1}{2}$ % paid by seller	Less than $\frac{1}{2}$ d.

Exchange Operations by Telephone, Telegram or Cable.—From the point of view of London, exchange operations consist in buying or selling foreign currency either in London or in another exchange market on the operator's own account, or buying and selling foreign currency in London on behalf of agents abroad, or on joint account with such agents.

When the business is transacted by telephone, the parties concerned (who are in constant touch with their respective markets) compare rates and arrange the bargains during the period of the call,

confirmations in writing being subsequently exchanged between the "Instructions Departments" of the respective financial houses.

If telegrams or cables are used, the time taken to execute the business will depend on the distance between the centres and on the expedition with which the message is dealt with by the Post Office or the cable company concerned. Apart from the fact that all such messages must be properly authenticated, the operating banker must, of course, give his correspondent precise instructions as to whether or not he is to use his discretion in executing the order; i.e., whether the agent is to buy or sell at the best rate obtainable ("at best"), or at a *limited rate*. And in either case the operating banker may impose a *time limit* within which he requires the transaction to be executed, for he cannot, of course, keep business indefinitely open on this side while his correspondent searches his own market for a buyer or seller.

With the object of saving expense on telegrams and cables, messages involving orders to buy or to sell are expressed in abbreviated form wherever possible, certain symbols and contractions being employed which are made up by the dealers concerned in such a manner as to be intelligible to the recipients. The made-up words may consist of not more than ten letters or five figures, as in the following specimens, but the use of such abbreviations is not always possible, because some telegraph and cable companies will not accept messages in this form.

Message · BUYMILAN HAFMILION BEST

Interpretation : Buy 500,000 lire at the best rate obtainable on our account.

Message : SOLDOLLS HALFMIL 48626

Interpretation : We have sold \$500,000 at 4·86 $\frac{1}{4}$ on your account.

(NOTE.—The rate is always understood to be in decimals, which, in the case of the New York rate, are given to the fourth place.

Message : LIMIT 2680 SELDOLS TWOHUNTHO

(Sent to Stockholm)

Interpretation : Sell \$200,000 at a rate not higher than \$26·80 per 100 kronor.

Message : LIMIT 2680 BUYOSLO HUNTHOJNT REPLYHERE FIVLATEST

(Sent to New York)

Interpretation : On our joint account buy 100,000 Norwegian kroner at not more than 26·80 cents per krone and subject to your advice being received here not later than 5 o'clock to-day.

Message : BESTPOSSEL HUNFIFTHO DOLLARS FRI

Interpretation : At best possible rate sell \$150,000, value Friday.

Message : SLPDSTWNTY THOFRIAGST ENDAUGUST

Interpretation : Sell at best possible rate £20,000 value Friday against end August.

Message : OFRYOUEM SVNTYFVTHO 48487 DOUAGREE

Interpretation : We offer you a demand draft on London for £75,000 at 4·84 $\frac{1}{2}$. Do you agree?

Message : SLRSTWOHUN THOMONTRL NOVFIFFTEEN ORYOUROPTN
NOVEMBER 4858

Interpretation : We are sellers of 200,000 Canadian dollars (i.e., Montreal) value 15th November or delivery at your option during November, at 4·85½%.

Message : BUYJOINT OSLOCOP HUNTHEACH REPLYHERE FOUR-
LATEST

Interpretation : On our joint account buy 100,000 Norwegian kroner and 100,000 Danish kroner, subject to your advice being received here not later than four o'clock to-day.

Message : REMIT ZURICH TWOHUNTHO BEST
(To Milan)

Interpretation : Buy 200,000 Swiss francs on our account at the best rate obtainable against your own currency, i.e., lire.

Message : HOWYUGIVE TWOHUNTHO PARIS SPOTAGST ENDAUGUST

Interpretation : At what rate will you sell 200,000 French francs spot against a similar amount deliverable at the end of August; i.e., at what rate will you "swap" 200,000 fcs. spot against 200,000 fcs. forward, end August.

Message : SWAPPARIS FIFTYCENTS YURFAVOUR

Interpretation : We will swap the French francs at 50 cents in your favour

Message : SELLPARIS FIVHUNTHO FRIDAGST THREEMOS FIFTCENTS
OURFAVOUR

(From Paris)

Interpretation : Sell 500,000 French francs for delivery Friday against purchase of three months' forward francs at a difference of 50 c. in our favour.

If the London spot rate is, say, 124·20-30, the rates applicable to the swap will be 124·30 and 124·80, i.e., the forward, to be sold at 50 centimes in favour of the French buyer, must be higher than the spot.

Message : BYPARISPOT TWOHUNFIF THOGSTDOLS LIMIT 393
(From New York)

Interpretation. Buy 250,000 T.T. Paris against dollars on our account at a rate not worse than 393 cents per 100 francs.

Ordinary Buying and Selling.—As an example of the manner in which a dealer makes profits from ordinary dealing in exchange, we may suppose that an operator buys, say, \$100,000 at 4·84½, and sells \$100,000 at 4·84¹¹/₁₆. The sterling equivalents are £20,629 3s. 10d. and £20,631 17s., and the gross profit is, therefore, £2 13s. 2d. How much of this is net profit depends on the circumstances of the case. If the dollars are bought from one customer to the debit of his dollar account and are sold to another customer to be credited to a dollar account, the bank has practically no expenses and the £2 13s. 2d. is pure profit. If, however, both deals are done on the London market, the bank has to pay two brokerages of 13s. 4d. each and two cables (a "pay" and a "receive") costing about 7s. each, thus reducing the net profit to 12s. 6d.

In practice, it usually happens that a bank, by means of numerous small deals, say, in dollars, gradually accumulates an overbought or

oversold position and covers it \$100,000 or so at a time. The small deals are done at different rates, and an average must be struck in order to arrive at the net profit.

Orders to Buy and Sell at Best.—Much of the business of an exchange dealer consists in the executing of orders to buy or to sell received from the correspondents abroad, or in giving such orders to foreign agents. Between centres which are linked by telephone, the rates will be given and taken and the business immediately completed, but, in other cases, the instructions may be forwarded by telegraph or cable, or given by mail.

If the cabled or telegraphed message to or from a correspondent is merely an order to sell or to buy, and contains no reference to a rate, it is understood to mean that the operation is to be transacted at the best rate obtainable. Thus a telegram to an agent in Stockholm (the principal centre for Scandinavian currencies) instructing him to buy \$500,000 at best, might be worded:—

*“Buydolls halfmil best.
Lombank.”*

In such a case, the reply and advice from the Swedish bank might read:—

*“Botdolls halfmil 3725.
Swebank.”*

By this message the London banker understands that his correspondent has bought \$500,000 at 3·725 kronor per \$1 on his account, and he will, if necessary, take steps to cover the transaction by selling the requisite amount of dollars and purchasing the kronor required to meet the debt against him in Stockholm.

Example 1.—A London dealer has sold \$100,000 to a customer at 4·86½ which he wishes to cover through Stockholm. He telegraphs to his Stockholm agent —

“Buydolls onehuntho best,”

and receives the reply:—

“Botdolls onehuntho 3726.”

If he can purchase in London the kronor necessary to cover his purchase of dollars in Stockholm at 18·15, what is his profit or loss on the transaction?

Sterling proceeds of sale of \$100,000 = $\frac{100000}{4 \cdot 86\frac{1}{2}}$		= £20,565 11 1
\$100,000 bought at Kr. 3·726 per \$ cost Kr. 372,600		
Cost of Kr. 372,600 @ 18·15 = $\frac{372,600}{18 \cdot 15}$		= £20,528 18 6
Profit (excluding expenses)		= <u>£ 36 12 7</u>

“**Limit Orders.**”—If the foregoing order to the Stockholm correspondent was to be executed at a limit, the message may read:—

“*Limit 3726 buydolls halfmil.
Lombank.*”

The figure of 3·726 would have been arrived at by the London dealer after consideration of the rates at which kronor and dollars were respectively quoted on the London market, for he would not, of course, instruct his Stockholm correspondent to buy dollars against kronor up to the limit specified if he were able to get them any cheaper in London.

Occasionally the correspondent may be given limits in respect of two or more currencies, and he may be instructed to buy or to sell that currency whose current price is the nearest to the given limit. Or the agent may be asked to sell one currency and to buy another, for the account of the operating dealer, at or better than certain limits.

In all such cases it rarely happens that the prevailing market rates agree with the limits fixed by the dealer forwarding the message, and, in such circumstances, the agent must carefully determine whether the order is to be executed or not.

Viewing the matter from the point of view of London, we see that a dealer on this side who is asked to buy or to sell on account of an agent has to consider three things in connection with the order:—

- (1) Whether the operation is a sale or a purchase.
- (2) Whether the rates to be used are in sterling or in foreign money.
- (3) Whether the present rates have improved or got worse as compared with the limits.

For a simple order to buy or to sell a given currency, all the dealer has to do is to determine whether present rates have improved for the particular operation he has in view. For this purpose it is necessary to bear in mind the maxim previously referred to for rates in foreign money:—

“Buy high, sell low,”

the reverse being true for rates quoted in sterling. That is to say, if he is buying he must watch for a present rate in foreign money which is equal to or *higher* than the limited price, and he would not execute the order if the rate had dropped below the limit fixed by his correspondent. On the other hand, he would watch for an equivalent rate or a *lower* rate in foreign money if he had to sell

foreign currency, and he would not execute a sale order if the rate concerned had risen above the limited price.

If several limited rates are given on various centres, with instructions to use the best rate either for buying or selling, the dealer has to compare present rates with the limited rates, and also with each other, in order to determine which is the best to use. First of all, he decides whether the rates have improved or worsened for the particular operation he has in hand. If one has improved and the others deteriorated, he will naturally use the rate which has improved. If all have improved, he ascertains which has improved most and uses that, whereas, if all have deteriorated, he selects and uses that which is nearest to his limit.

The best way to make such a comparison is to express present rates and limited rates as fractions, and, by division, determine how greatly the fractions differ from unity, in accordance with the following rules:—

- (1) If all rates have improved, express present rates and limited rates, whether in sterling or in currency, in such a way as to obtain an *improper fraction*. That is, use for the numerator, the rate which is the higher of the two. Choose for the operation that fraction which gives the highest quantity when expressed as a decimal.
- (2) If all rates have become worse, express them in the form of a *proper fraction*, and choose that which gives the decimal quantity nearest to unity.

MNEMONIC: **Improved—Improper.**

Example 2.—Order to Purchase.

A London banker is asked by his correspondent in Paris to buy marks @ 20·38, or francs @ 124·10, whichever is the best. If present prices are francs 124·20 and marks 20·36, which should be used?

Both rates are in foreign money, therefore *buy high, sell low*.

The Paris rate has risen above the limit, whereas the Berlin rate has dropped below, therefore choose Paris @ 124·20.

Example 3.—Order to Purchase.

Order : Buy marks @ 20·45, francs @ 124·35, or florins @ 12·15, or the best. Present rates : Marks 20·40, francs 124·20, florins 12·12.

All rates are in foreign money, and, since all have fallen, all are worse for buying. To find out which rate is the nearest to the fixed limit, express the rates as *proper fractions*, as follows :

$$\begin{array}{lcl} \text{Berlin} & \frac{20 \cdot 40}{20 \cdot 45} = \cdot 9976. & \text{Paris} \quad \frac{124 \cdot 20}{124 \cdot 35} = \cdot 9988. \\ & & \text{Amsterdam} \quad \frac{12 \cdot 12}{12 \cdot 15} = \cdot 9975. \end{array}$$

The best rate is that on Paris, which differs by $1\frac{1}{2}$ per mille from the limited rate. The Amsterdam rate is the worst, as it shows a difference of $2\frac{1}{2}$ per mille

Example 4.—Order to Sell.

Order: Sell marks, francs, or florins, whichever is the best, present and limited rates as in the last example

All the rates have fallen, and have therefore *improved* for selling. To determine which rate is the best, express the rates as improper fractions, and find which is highest above unity:—

$$\text{Berlin } \frac{20.45}{20.40} = 1.00245. \quad \text{Paris } \frac{124.35}{124.20} = 1.0012.$$

$$\text{Amsterdam } \frac{12.15}{12.12} = 1.00247.$$

The Amsterdam rate shows the most improvement, so this should be used.

Example 5.—Order to Sell.

Order: Sell florins @ 12.12, marks @ 20.42, francs @ 124.25, or the nearest to these limits.

Present rates: Amsterdam 12.15, Berlin 20.46, Paris 124.45

All the rates have risen, and are therefore worse for selling. Express the rates as proper fractions, and select that rate nearest to unity:—

$$\text{Amsterdam } \frac{12.12}{12.15} = .9975. \quad \text{Berlin } \frac{20.42}{20.46} = .9980.$$

$$\text{Paris } \frac{124.25}{124.45} = .9984$$

The best rate to use is therefore the Paris rate of 124.45.

If one or more of the rates is in sterling, great care is required to express the fraction in the correct way, as this involves using present prices and limited rates in the opposite way to that applied in the case of foreign rates.

Example 6.—Order to Buy.

Order: Buy francs @ 124.50, or Argentine pesos @ $47\frac{1}{2}$, or whichever is the better.

Present rates: Paris 124.00, Buenos Aires $47\frac{1}{4}$.

The Paris rate in foreign money has fallen, whereas the Buenos Aires rate in sterling has risen, so both are worse for buying. We therefore express both in order to get proper fractions:—

$$\text{Paris } \frac{124.00}{124.50} = .996. \quad \text{Buenos Aires } \frac{47.5}{47.5625} = .9987.$$

The Buenos Aires rate is the better.

Example 7.—Order to Sell.

Order: Sell dollars @ $4.86\frac{1}{4}$, or Uruguayan pesos @ 51, or the better.

Present rates: New York, $4.86\frac{1}{4}$, Monte Video $51\frac{1}{2}$.

Both rates have improved for selling, so we express the rates so as to obtain improper fractions.

$$\text{New York } \frac{4.8625}{4.86125} = 1.0002. \quad \text{Monte Video } \frac{51.125}{51} = 1.002.$$

The Monte Video rate should be used.

The reader should observe that, in the last two examples, the sterling fraction is made up in the opposite way to the foreign fraction. The method to be adopted depends entirely on whether the rate has

improved or become worse for the particular operation—buying or selling.

Covering Operations.—Frequently the orders received by dealers from their correspondents involve the purchase or sale of one currency, covered by the sale or purchase of another, at limited rates. A London dealer may be instructed to buy francs against marks, i.e., to buy francs and to cover by selling marks, or he may be instructed to sell dollars and to cover by the purchase of Swedish kronor. The correspondent may supply the dealer with limited rates applicable to both currencies, or, as is often the case nowadays, he will merely supply a limited rate for the exchange between the two currencies concerned.

Whichever method is adopted, it devolves upon the dealer who has to carry out the transaction to determine whether the existing rates for the currencies involved are such as to enable him to execute the order with advantage to his correspondent and retain the usual profit or “turn” for himself.

If the agent supplies two limited rates, and market quotations for both currencies have improved, the operation can, of course, be carried through, whereas if both have got worse for the particular transaction, i.e., purchase or sale, as the case may be, the order cannot be executed. Frequently, however, one rate improves while the other gets worse, and in this case it is necessary to determine whether the gain on one compensates for the loss on the other.

Theoretically, we may do this, as in the previous examples, by expressing improved rates as *improper* fractions, and deteriorated rates as *proper* fractions, thereafter simplifying into decimal quantities. An improvement is indicated by a quantity above unity, whereas deterioration is shown by a decimal. If the amount by which one fraction falls short of unity is made good by the excess of the other fraction above unity, then the operation can be made, and the simplest way to determine this is to add the two quantities, and find if they are greater or less than 2.

Example 8.

Order: Buy francs @ 124·25; sell marks @ 20·40.

Present rates: Paris 124·20, Berlin 20·38.

For buying Paris has deteriorated, for selling Berlin has improved, and if the improvement compensates for the loss the order can be executed.

$$\begin{array}{rcl}
 \text{Worse rate, Paris} & = & \frac{124 \cdot 20}{124 \cdot 25} = \cdot 9996 \\
 \text{Better rate, Berlin} & = & \frac{20 \cdot 40}{20 \cdot 38} = \frac{1 \cdot 0009}{2 \cdot 0005}
 \end{array}$$

The operation can therefore be conducted, as the loss on one transaction is made up by the gain on the other.

Example 9.

Order: Buy francs @ 124·25; sell Buenos Aires @ 47½.

Present rates: Paris 124·30, Buenos Aires 47¾.

Paris is better for buying, Buenos Aires (in sterling) worse for selling.

$$\text{Better rate} = \frac{124 \cdot 30}{124 \cdot 25} = 1 \cdot 0004$$

$$\text{Worse rate} = \frac{47 \cdot 375}{47 \cdot 5} = \frac{\cdot 997}{1 \cdot 9974}$$

The order cannot be executed.

Example 10.

Order: Remit to Berlin @ 20·38; draw on Amsterdam @ 12·11

Present rates: Berlin 20·41, Amsterdam 12·12.

$$\text{For buying Berlin is better, } \therefore \frac{20 \cdot 41}{20 \cdot 38} = 1 \cdot 0014$$

$$\text{For selling Amsterdam is worse, } \therefore \frac{12 \cdot 11}{12 \cdot 12} = \frac{\cdot 9991}{2 \cdot 0005}$$

Order can just be executed.

Equivalent Rates.—The examples under the last heading can be worked by taking the present price which has improved, and calculating, by proportion, the value of the other rate to which the banker is limited if he wishes to carry through the operation without loss. To do this, express the two limited rates and the improved present price as ratios, representing the unknown value of the deteriorated rate by x . When x is determined, it is then a simple matter to decide whether the actual present rate given will enable the transaction to be completed or not.

Example 11.

Order: Buy francs @ 124·30; sell marks @ 20·41.

Present prices: Paris 124·25, Berlin 20·40.

Berlin has improved for selling, therefore the Paris rate can get worse for buying, i.e., go down. Find how low the Paris rate can fall and yet permit the transaction to be carried through without loss.

$$\therefore \frac{20 \cdot 41}{20 \cdot 40} = \frac{124 \cdot 30}{x}, \therefore x = 124 \cdot 24 \text{ (approx.).}$$

This indicates that the Paris rate at 124·24 would just permit the operation to be made without loss, but as the present rate of 124·25 is higher than this, the order can be safely executed.

Example 12.

Order: Buy francs @ 124·35; sell Argentine pesos @ 47⅞.

Present rates: Paris 124·50; Buenos Aires 47½.

Paris has improved for buying, therefore Buenos Aires can get worse for selling without loss, so find equivalent rate:—

$$\therefore \frac{124.50}{124.35} = \frac{47.4375}{x}, \therefore x = 47\frac{3}{8} \text{ approx.}$$

At the rate of $47\frac{3}{8}$ on Buenos Aires, the order could just be executed without loss, but the Buenos Aires rate has dropped further, to $47\frac{1}{4}$, so the order must not be completed.

Equivalent rates are also required where only one present rate is given, and it is necessary to determine the limit in the price for the other operation.

Example 13.

Order: Buy francs @ 124.43; sell marks @ 20.43.

Present price of francs is 124.30, what is the equivalent rate on Berlin at which the operation can be made without loss?

Paris is worse for buying, therefore Berlin must improve for selling, i.e., go down.

$$\therefore \frac{124.43}{124.30} = \frac{20.43}{x}, \therefore x = 20.408.$$

The Berlin rate must drop to 20.408 or less to prevent loss. In other words, since more has to be paid for francs, more must be obtained for the marks sold to cover.

Example 14.

Order: Buy lire @ 92.25; sell Argentine pesos @ $47\frac{1}{16}$.

Present price on Milan is 92.45, what rate on Buenos Aires can be used if no loss is to be incurred?

Milan is better for buying, therefore Buenos Aires can get worse for selling, or go down in sterling, consequently because I can buy lire at a cheaper rate than the limit fixed by my correspondent, I can accept slightly less for pesos.

$$\therefore \frac{92.45}{92.25} = \frac{47.3125}{x}, \therefore x = 47\frac{1}{16} \text{ (approx.)}$$

Example 15. Sale of Dollars against Kroner.

A London dealer receives a cable from his Oslo correspondent "Sell fifty thousand dollars limit 37375." If the brokers call Oslo 18.20-23 and New York $4.86\frac{1}{4}-\frac{3}{8}$, can the dealer execute the order at a profit to himself, and if so, of how much, expressed as cents in the dollar rate?

The correspondent must get for each dollar not less than 3.7375 kroner, which the dealer can buy in the market at 18.20 kr. per £.

By Chain Rule, the dollar parity is:—

$$? \$ = £1.$$

$$£1 = 18.20 \text{ Kr. (the rate at which Kr. are offered in London, i.e., the market's selling rate).}$$

$$\text{Kr. } 3.7375 = \$1.$$

$$\frac{18.20}{3.7375} = \$4.86956.$$

Therefore, at the limit given in the telegram, the dealer would be purchasing the dollars from his correspondent on a basis of approximately $\$4.86\frac{3}{8}$ per £1. He can sell them in the London market at $4.86\frac{1}{4}$, and thus get a gross profit of

$$\$4.86\frac{3}{8} - 4.86\frac{1}{4} = \frac{1}{8} \text{ cents per } £1.$$

Dealing in Cheque against T.T.—Although the tendency is for the spread between the T.T. and cheque rates to absorb practically the whole of the interest gained by the banker on the funds represented by a cheque, there is usually a margin which occasionally enables the dealer to make good profits by buying or selling cheque on New York and other distant centres against T.T. The very high call money rates in New York in recent months have given rise to a great number of deals of this type, of which the following is an example:—

Example 16.

£100,000 worth of cheque on New York sold in London at $4\cdot85\frac{1}{2}$ (by custom the cheque is delivered on the day of the deal and payment of the sterling is made the next day)	.. .. .	\$485,625
£100,000 worth of T.T. bought to cover, value next day, at $4\cdot85$ (the ordinary usance for New York is two days, but one day can usually be arranged without trouble)	.. .. .	\$485,000
	Apparent loss	\$625
Eight days' interest at 8 % on \$485,000, the amount of the T.T. (360 days' basis)	.. .. .	862
	Gross Profit	<u>\$237</u>

This is roughly £49, from which has to be deducted £3 6s. 8d. for brokerage, and about 6s. for one cable. The sterling is received and paid on the same day, and does not, therefore, affect the calculation.

An operation of this type is necessarily speculative, since an extra fast boat may get the cheque to New York more quickly than is anticipated, or there may be a relapse in call-money rates. On the other hand, the margin of profit may be increased if call-money rates rise or the ship conveying the mail is delayed.

Comparison of Rates at Two Centres.—There are generally two distinct rates of exchange between any two centres at the same time. For instance, between Madrid and London there is the London rate on Madrid, and also the Madrid rate on London. Either or both of these may be short or long rates, or the method of quotation may differ in some other respect. If the rates are both short, they are usually tending towards equality, whereas if they are long rates they may differ by the period which they have to run, and also by the difference between the interest calculated at the home and foreign discount rates.

It is frequently necessary to compare these direct rates existing at two centres, in order to determine the most advantageous method for transferring funds or for paying debts. The method used will naturally be the one most advantageous to the party owning the funds, or, in the case of a debt settlement, the one most advantageous

to both parties, i.e., that which yields most to the creditor and costs least to the debtor.

In order to make the comparison, the rates on the two centres must be reduced to the corresponding short rates if they are not already so expressed, and both rates must be expressed in the same terms.

There are three cases to be considered:—

- (1) If both short rates are given, and they are quoted in the same way, they can be compared at once.
- (2) If one short rate is quoted in a different way from the other, e.g., one in sterling and the other in currency, a calculation is necessary to express one in the same way as the other.
- (3) If long rates or a long rate is quoted, they must be reduced to short rates by adding or subtracting interest for the period quoted at the foreign discount rate, afterwards changing them to quotations of the same kind. The interest must be taken into calculation because it affects the two rates concerned in opposite ways. Allowances for stamp and risk and for other charges can be neglected, because they are usually too small to affect the result. If, however, they are appreciable, they must be adjusted in the usual way.

Looking at the rates from the English point of view, there are two cases for comparing rates quoted in London and at foreign centres.—

- (1) When both rates are in foreign money, e.g., London and Paris.
- (2) When both rates are in sterling, e.g., Buenos Aires and London.

The bank rate of discount is considered in each case as applying to ordinary commercial paper.

Example 17.

London on Paris short rate = 124·18.
Paris on London short rate = 124·20

Which rate is the better for remittances from London, and how should payment be made?

The higher rate is better, because less sterling has to be paid for a debt payable in francs in Paris, consequently the Paris rate should be used, and creditors in France asked to draw on London.

Example 18.

London on Monte Video short rate = 47½ pence per dollar
Monte Video on London long rate = 48 „ „
Discount in London 5 %, Monte Video 6 %.

Which is the better rate for returns from Monte Video, and how should payment be obtained?

Monte Video on London long rate..	..	=	48
3 mos. interest at 5 % .. ..	..	=	.6
Stamp and risk at 1 per mille ..	..	=	.048
			<hr/>
			.648
Short rate on London .. ..	..	=	47.35
London short rate .. ..	..	=	47.50

England has a higher sterling rate, so a London creditor should draw on Monte Video, thereby obtaining more pence.

To Determine which Rate is Best for Remittances or Returns.—

When any necessary calculation has been made, and both rates are expressed at the short prices in the same terms, it is possible to decide which of the two rates can be more advantageously used for the transfer of money. For the sake of clearness, the operations are considered from the London point of view, but the application of the theory is the same wherever the dealings take place.

In exchange operations in England, the term “remittances” is used for transfers of money from England to foreign countries, and the expression “*returns*” for transfers to England from other countries. In other words:—

For *remittances*, England is the *debtor* and must pay.

For *returns*, England is the *creditor* and should receive.

Remittances.—Money leaving England.

- (1) London can buy and remit currency of the foreign centre in the form of T.T., M.T., or bills on that centre, i.e., London is a buyer.
- (2) The foreign centre can offer sterling for sale, in the form of drafts, M.T., or T.T. on London. In this case also London may be termed a buyer, because the English debtor has to “buy in” the rights to sterling by exchanging them for cash.

Returns.—Money from abroad to England.

- (1) London can offer the currency of the foreign centre as drafts, T.T., or M.T., i.e., London is a seller.
- (2) The foreign centre can buy and remit sterling in T.T., M.T., or bills on London. Here again London can be regarded as a seller because the rights to sterling received from the foreign debtors have to be changed into cash in London.

either by selling them, or discounting them, or collecting the money when due.

Now, with two rates before us on any two centres, we decide, first of all, whether the operation is a remittance or a return, and whether the rate is in foreign money or sterling. Then, keeping in mind the maxim "Buy high, sell low," we choose for *remittances*, i.e., for buying, the higher foreign rate, or the lower sterling rate, and for *returns* the lower foreign rate, or the higher sterling rate. That is to say, if we are sending money from England to France, and the rate in London is higher than in Paris, we use the London rate, which means that we must buy francs in London. If, however, the French rate is higher than the London rate, we choose the Paris quotation, and this means that the Parisian creditor must offer sterling in Paris, in the form of T.T., M.T., or draft on London. So, also, for getting money from France, if the London rate is lower we use that, and, as creditors, we offer francs for sale in London. If the Paris rate is the lower, we ask our debtors in France to use that rate by buying sterling over there and remitting to us.

The cases for rates quoted in sterling are simply the reverse of the foregoing, and are quite easy to understand, because, if we are buying, the less sovereigns we pay the better, and, if we are selling, the more sovereigns we get the better.

The following summary gives the rules which can always be acted upon:—

For remittances, England is debtor, the foreign country, creditor.

For returns, England is creditor, the foreign country, debtor.

Then for remittances *and* returns.—

- (1) If England has the higher foreign rate or the lower sterling rate, the *debtors* should remit.
- (2) If England has the lower foreign rate, or the higher sterling rate, the *creditors* should draw.

Example 19.

The following rates are quoted on a given date:—

London cheque rate on Paris 124·20; Rate in Paris for three months prime banker's bills on London 122·85.

London T.T. rate on Buenos Aires 47½d.; Buenos Aires 90-day sight rate on London 48½d.

If interest in London is allowed at 4 %, find the best rates for remittances and returns (a) between London and Paris; (b) between London and Buenos Aires. Allow ½ per mille for English stamps, but neglect all other changes

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REDUCTION TO SIMILAR RATES.

London cheque rate on Paris	124·20
Paris on London, 3 months	122·85
Add interest at 4 %	1·23
,, stamp, $\frac{1}{2}$ per mille	·06
Cheque rate (approx.)	<u>124·14</u>
London T.T. rate on Buenos Aires	47 $\frac{1}{2}$
Buenos Aires on London, 90 days' sight	48·25
Less interest at 4 % for, say, 104 days	
(London terms)	·55
,, Stamp duty	·024
	<u>·574</u>
T.T. rate (approx.)	<u>47·676</u>
Say, 47 $\frac{3}{4}$ d.	

APPLYING THE FOREGOING RULES to these rates, we see that—

For Remittances.—London the debtor :—

- (1) London has the higher foreign rate, therefore debtors remit to Paris. A man who owes Fcs. 10,000 in Paris will pay less at 124·20 than at 124·14 per £1.
- (2) London has a lower sterling rate, therefore debtors remit to Buenos Aires. Payment of a debt in Buenos Aires costs less at 47 $\frac{3}{4}$ pence than at 47 $\frac{1}{2}$ pence.

For Returns —London the creditor:—

- (1) London has a higher foreign rate, therefore French debtors remit to London. It costs a Frenchman less francs to pay £1,000 in London at 124·14 than at 124·20, whereas if the Frenchman owes London Fcs. 10,000 the English merchant gets more sterling at 124·14 than at 124·20.
- (2) London has a lower sterling rate, therefore Buenos Aires debtors should remit to London. If a Buenos Aires merchant owes London 10,000 pesos, the Buenos Aires rate of 47 $\frac{3}{4}$ pence produces more sterling for London, whereas it costs a Buenos Aires merchant less pesos to pay a debt of £1,000 in London if he uses the Buenos Aires rate, by which he gets more pence for each peso.

CHAPTER XXIII

ARBITRAGE

IT is the purpose of the present chapter to examine the arithmetical side of the more common forms of arbitrage operations between exchange dealers and their agents abroad which are effected mainly with the object of transferring funds from one centre to another in the cheapest possible way, or of profiting from variations in the quoted prices for the same currency on different markets.

In pre-war days, most arbitrage operations between different countries were effected by means of bills of exchange, despatched by mail from one centre to another. At the present time, however, what is known as "arbitrage in bills" is practically obsolete, for, although the bill of exchange is unrivalled, so far as traders are concerned, as a medium for effecting settlements, and, as far as bankers are concerned, as the chief means of creating and replenishing foreign currency balances, the vast majority of arbitrage operations in exchange are conducted with great speed by telephone, telegraph, and cable.

Some of the characteristics of modern arbitrage in exchange have been explained in Chapter VIII. As is there pointed out, the effective stabilisation of world currencies on a gold basis and the close inter-communication between the various financial centres, tends to reduce the opportunities for profitable arbitrage to a minimum. The relative values of the world's most important currencies tend to equality in all the leading centres, and any disparity is so quickly noticed and taken advantage of that it almost immediately disappears. Naturally, this tendency is less marked between centres which are so far apart that cable messages take some hours to reach their destination. The distance between London and Kobe is so great that appreciable differences might arise in their respective rates on each other were it not that New York, which has much the best market in Japanese yen, is largely used as an intermediary.

Simple or Two-Point Arbitrage.—Generally speaking, most transfers of funds between world centres are effected by what are sometimes

technically described as *direct exchanges*, i.e., the exchange of one currency directly for another without the intervention of a third currency, thus giving rise to direct rates of exchange; and the simplest form of arbitrage (i.e., *two-point* arbitrage) is that illustrated on pages 182–183, where a dealer acting on his own account or on joint account with his agent, reaps a profit from the difference between the ruling prices for a currency in two centres, by buying in one centre and selling in the other.

Joint Operations.—Whilst the majority of arbitrage deals are “nostro” operations, i.e., transactions worked independently for its own profit by the house instituting the business, a considerable number are conducted as “joint ventures,” i.e., on joint account between the two houses concerned, which share expenses and divide profits or losses, as the case may be. The transactions in such circumstances are usually passed over the *vostro* accounts of the two participants, and, as a rule, no commission is charged or allowed for the actual conduct of the dealings. In most cases, joint operations are initiated when one of the parties, who sees a likely source of profit in a given transaction, instructs the other dealer by telephone or cable to buy or to sell a specified amount of a given currency on joint account.

If the instructions are given by telephone, the operation is usually carried out forthwith, but, if they are conveyed by cable, the dealer executing the business advises his correspondent as soon as the transaction is arranged, whereupon the necessary entries are passed to the *vostro* and *nostro* accounts in respect of the divided profit or loss resulting from the operation.

By way of illustration, we may suppose that dollars are quoted in London at $4.86\frac{1}{4}-\frac{3}{8}$, and that the dealer in Lloyds Bank forms the opinion that dollars are likely to appreciate later in the day, i.e., that the rate on New York is likely to fall. He accordingly wishes to get dollars at once to his account in New York so that he can sell later at a profit. To do so he may adopt one of two alternatives. He may buy T.T. 250,000 on New York in London, say, at $4.86\frac{1}{4}$, and cable his New York correspondent to cover by buying sterling at best or at a limit, e.g., “Buy joint sterling 50,000 at best” or “Limit 4.86 buy joint sterling 50,000.” On executing the order, the New York dealer might cable “Botfiftho 486 joint,” specifying the rate which he was able to obtain.

Alternatively, the London dealer may get the dollars in New York by cabling his correspondent in that centre somewhat as follows: “*Best possel fiftho joint*,” i.e., “At the best rate obtainable,

sell \$50,000 on our joint account." In due course, New York will cable, say, "*Sold joint fifth* 48625," and, on receipt of the message, the London dealer will cover by purchasing dollar T.T. at the best rate obtainable in London, say, 4·86½, immediately advising his correspondent of the fact so that the latter will know how the transaction has worked out.

In due course, the equivalents in dollars and sterling pass to the respective vostro accounts, and the deals are confirmed by mail showing a joint profit of ¼ cent in the rate divisible between the two parties, less any expenses, brokerage, etc., incurred.

Indirect Arbitrage.—At the present time the possibilities of profit from such direct arbitrage are at a minimum, and dealers find greater opportunity in *indirect* operations. Naturally, no dealer will exchange one currency direct for another if he can more profitably effect the transfer by an *indirect exchange*, i.e., by making use of one or more intermediate currencies in order to effect the ultimate conversion. For example, a London dealer desirous of transferring funds to New York may find that it pays him best first to buy francs and thereafter to exchange his francs for dollars. Such arbitrations in exchange are termed *simple* or *compound* according as there is one intervening currency or more than one.

Another variety of arbitrage operation is what is known as a *cross exchange*, i.e., a direct exchange made between two centres for the benefit of a third place. Thus, a London dealer holding francs in Paris may instruct his agent in that centre to transfer the funds to Berlin by the purchase of marks in Paris on his account.

It must be reiterated that indirect arbitrage operations are difficult and complex, involving first-rate dealing ability as well as extensive and accurate knowledge of the actual and likely course of the market. Nowadays, translations from one currency to another offer no terrors to the practical cambist, since the conversions are rapidly and easily effected by the several varieties of calculating machines which are available for the purpose.

Tables of Equivalent Rates.—Where calculating machines are not available, or for some reason cannot be applied to the rates in question, or in certain cases where a calculating machine is used and it is desired to record the results, much labour and time may be saved by the construction of *Tables of Equivalent Rates*. These cover variations in the rates of exchange between certain currencies, with the object of enabling the dealer to say almost at a glance what rate is established between two currencies by the intervention of a third currency at a

given rate. The following simple example illustrates the method of compiling such a table for determining the equivalent rate between London and Paris when the London T.T. rate on Amsterdam is known and also the cheque rate on Amsterdam in Paris:—

EQUIVALENT RATES

LONDON, PARIS AND AMSTERDAM

Price of cheque, Amsterdam, in Paris	Rates for Paris, given T T rate London on Amsterdam					
	12 08	12 09	12 10	12 11	12 12	12 13
—	—	—	—	—	—	—
1026	123·94	124·043	124·146	124·249	124·351	124·454
1026·25	123·971	124·074	124·176	124·279	124·381	124·484
1026·50	124·001	124·104	124·207	124·309	124·412	124·514
1026·75	124·031	124·134	124·237	124·339	124·442	124·544
1027	124·061	124·164	124·267	124·37	124·473	124·575
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

Suppose, for example, that when the London T.T. rate on Amsterdam is 12·08, a London dealer is advised that cheques on Amsterdam in Paris can be sold at 1026. On reference to the table, the dealer finds that the equivalent rate for francs is 123·94. Hence, if he is a buyer of francs, and cannot get them in London at a better rate than this, he may buy T.T. on Amsterdam at 12·08 and instruct his agent in Paris to sell florins at 1026. In using the table, the dealer must, of course, be most careful to allow for any necessary brokerages and expenses involved in the indirect exchange.

These tables are of considerable utility in connection with instructions received by cable embodying orders to buy or to sell one currency against another at a given rate. Thus, a London dealer may receive a cable from New York:—

“ 391 *Buyspot Paris fivemilln* ”

This rate means \$3·91 per 100 francs, and, in order to determine whether he can execute the order, the London operator uses his Loga calculator, or, for greater accuracy, his Madas machine, to find that the quotation of 3·91 is equivalent to the following London rates on Paris and New York respectively:—

124·00 and 4·8484,
124·01 „ 4·848791,
124·02 „ 4·849182,
124·03 „ 4·849573,
124·04 „ 4·849964,
or 124·05 „ 4·850355.

If, therefore, he is to execute the American order and keep a margin of two centimes for his expenses and profit, he must be able to buy the francs at 124·03 and sell the dollars at 4·848791 (roughly 4·84 $\frac{7}{8}$) or at 124·05 and 4·849573 (roughly 4·84 $\frac{31}{32}$).

With such aids to the arithmetical processes involved in exchange dealing, the skill of the operator makes itself evident mainly in the speed with which he seizes upon a likely opportunity for profit, in the foresight or judgment which he displays in anticipating the course of rates in the immediate future, and in the care which he exercises in ensuring that proper allowance is made for loss of interest as well as for all necessary expenses and charges involved in a complicated operation. At the same time, it must be remembered that involved arbitrage operations are not possible unless the house concerned has a network of agents and correspondents in the principal financial centres, and also an adequate supply of floating or *free* funds capable of being moved immediately from one centre to another.

Suppose, for example, that a London dealer wishes to transfer Fcs. 1,000,000 to Paris, either to meet maturing obligations or to take advantage of a high interest level in that centre. His close touch with the London Foreign Exchange Market will keep him well apprised of the tendency of francs in terms of sterling, whilst his morning mail from continental correspondents and his subsequent telephone and telegraphic communications to and from them will keep him informed of the tendency of francs in the European markets. With the help of his calculating machine and tables of equivalent rates, he will determine how the *direct* rate of exchange London on Paris compares with the sterling cost of francs bought with florins in Amsterdam, marks in Berlin, lire in Milan, and so on. In other words, he will compare the direct rate on Paris with the *simple arbitrated rate* through each of the principal European currencies.

Apart from mechanical aids, all such arbitrated rates may be determined without difficulty by the Chain Rule, but great care is necessary to allow for all brokerages, cables, postages, and other expenses, and also to ensure that the calculation is correctly based

on the buying or the selling rate, whichever applies in the particular case.

Example 1.—London quotes T.T. on Amsterdam at $12\cdot11$ — $12\cdot11\frac{1}{2}$, while in Paris, T.T. on Amsterdam sell at 1026. What indirect rate of exchange between London and Paris is established for buying francs, allowing brokerage at 1 per mille, and other expenses at 1 per mille?

To effect an indirect purchase of francs with the rates quoted, the London dealer must buy florins in London and sell them in Paris for francs; therefore—

$$\begin{aligned}
 ? \text{ Francs} &= \text{£}1 \\
 \text{£}1 &= 12\cdot11 \text{ florins (market selling rate to the dealer)} \\
 \text{Fl. } 100 &= 1,026 \text{ francs} \\
 &= \frac{12\cdot11 \times 1026}{100} = \text{Fcs. } 124\cdot249 \\
 \text{Allow two brokerages @ 1 per mille and} & \\
 \text{other expenses @ 1 per mille} &\quad \quad \quad \cdot373 \\
 \text{Indirect rate via Amsterdam} &\quad \quad = \text{Fcs. } \underline{123\cdot876} \text{ per £1.}
 \end{aligned}$$

Example 2.—On a given day the following market rates are quoted.—

IN LONDON.		IN PARIS.	
Paris	124·30-35		
Amsterdam	$12\cdot12-\frac{1}{2}$	Amsterdam	Fcs. 1026-·25 per Fl. 100
Berne	$25\cdot25-\frac{1}{4}$	Berne	„ 492·5 per Fcs. 100
Berlin	$20\cdot43-\frac{1}{2}$	Berlin	„ 608-·50 per Mks. 100

Find the indirect rates between London and Paris at which a London dealer can operate by using each of these centres, and decide which is the best rate for (a) paying Paris, i.e., buying francs; (b) receiving from Paris, i.e., selling francs

Allow for brokerage at $\frac{1}{10}$ per mille on each purchase or sale, and for other expenses at $\frac{1}{10}$ per mille on the indirect operations.

Buying Francs.		Direct Rates.		Selling Francs.	
Market rate	.. .. 124·300	Market rate	.. .. 124·350		
Less brokerage, $\frac{1}{10}$ per mille	·012	Add brokerage, $\frac{1}{10}$ per mille	·012		
	<u>124·288</u>		<u>124·362</u>		
Amsterdam.					
? fcs. = £1		? fcs. = £1			
£1 = 12·12 florins		£1 = 12·125 florins			
(buying)		(selling)			
Fl. 100 = 1,026		Fl. 100 = 1026·25			
(selling)		(buying)			
$\frac{12\cdot12 \times 1026}{100}$		$\frac{12\cdot125 \times 1026\cdot25}{100}$			
= Fcs. 124·351		= Fcs. 124·433			
Less two brokerages @ $\frac{1}{10}$ per mille and expenses $\frac{1}{10}$ per mille	·037	Add two brokerages @ $\frac{1}{10}$ per mille and expenses $\frac{1}{10}$ per mille	·037		
Fcs. <u>124·314</u>		Fcs. <u>124·470</u>			

Berne.

? Fcs. = £1	
£1 = 25.25 Swiss Fcs.	(buying)
Sw. Fcs. 100 = 492.5 French Fcs.	(selling)
$\therefore \frac{25.25 \times 492.5}{100}$	
=	Fcs. 124.356
Less brokerages, etc., as	
above .. ..	.037
	<u>Fcs. 124.319</u>

? Fcs. = £1	
£1 = 25.2525 Swiss Fcs.	(selling)
Sw. Fcs. 100 = 492.5 French Fcs.	(buying)
$\therefore \frac{25.2525 \times 492.5}{100}$	
=	Fcs. 124.369
Add brokerages, etc., as	
above .. ..	.037
	<u>Fcs. 124.406</u>

Berlin.

? Fcs. = £1	
£1 = 20.43 Mks.	(buying)
Mks 100 = 608 Fcs.	(selling)
$\therefore \frac{20.43 \times 608}{100}$	
=	Fcs. 124.214
Less brokerages, etc. ..	.037
	<u>Fcs. 124.177</u>

? Fcs. = £1	
£1 = 20.435 Mks.	(selling)
Mks. 100 = 608.5 Fcs.	(buying)
$\therefore \frac{20.435 \times 608.5}{100}$	
=	Fcs. 124.347
Add brokerages, etc. ..	.037
	<u>Fcs. 124.384</u>

COMPARISON OF RATES:

	Buying.	Selling.
Direct	£1 = Fcs. 124.288	£1 = Fcs. 124.362
By using Amsterdam	£1 = „ 124.314	£1 = „ 124.470
„ Berne	£1 = „ 124.319	£1 = „ 124.406
„ Berlin	£1 = „ 124.177	£1 = „ 124.384

The best rate for *buying* French currency or paying France is the one that yields the largest number of francs per £1. This is shown to be the indirect rate obtained by purchasing Swiss francs and selling them for francs, i.e., the indirect rate *via* Berne. The best rate for *selling* French currency, or receiving payment from France, is the one that yields the highest amount in sterling and which costs less to the debtor in France, i.e., the direct rate, London on Paris.

So for (a) *Remittances*, the indirect rate *via* Berne, 124.319, is best.
 (b) *Returns*, the direct rate on Paris, 124.362, is best.

Example 3.—A London exchange dealer purchases 100,000 T.T. Madrid in New York at \$14.6 per 100 pesetas and sells them in London at 33.25 to the £1. He covers his dollars against sterling at 4.86½. What profit or loss does he make on the transaction?

T.T. New York on Madrid costs \$14.6 per 100 pesetas.

The cost in New York of 100,000 Madrid is $\$1,000 \times 14.6 = \$14,600$

	£	s.	d.
\therefore Cost in sterling = $\frac{£14,600}{4.86\frac{1}{2}}$	=	2,999	9 9
Proceeds of sale of 100,000 Madrid at 33.25 = $\frac{100,000}{33.25}$	=	3,007	10 5
\therefore Profit on the transaction	=	<u>£ 8 0 8</u>	exclusive of brokerage and cablegrams

Example 4.—A London arbitrageur purchases a T.T. on Prague for one million kroner against dollars at Kr. 33.925 per \$1. He sells the kroner in London at 165 and covers the dollars at 4.86½. What profit or loss does he make on the transaction?

	£	s.	d.
Cost of Kroner = $\frac{1,000,000}{33.925 \times 4.865}$	-	6,058	19 0
Proceeds of Kroner @ 165 = $\frac{1,000,000}{165}$	-	6,060	12 1
Profit, excluding expenses		<u>£ 1 13 1</u>	

Compound Arbitrage.—If time allows and rates are sufficiently steady, a dealer who wishes to transfer a considerable sum from one centre to another may examine the position of the various exchanges with still greater care in order to determine whether he can profitably transfer the funds by making the exchange through two, or even more, currencies, i.e., by executing what is known as a *compound arbitrage*.

Compound arbitrage is sometimes described as *four* or *five-point* arbitrage, according to the number of currencies or places involved, but, as the charges on such complicated operations increase with each intervening centre, they are nowadays very rarely undertaken.

The following examples are largely hypothetical, but they should serve to illustrate the principles involved and afford useful theoretical practice in the application of exchange rates in different centres. In all cases, the calculations are made by the Chain Rule, as in previous examples. The question of expenses and charges is necessarily of great importance, and, in circuitous operations, allowance must in certain circumstances be made for interest on the money invested for the time of the operation.

Example 5.—*London and Madrid.*

A London dealer buys T.T. on Paris at 124.15, the francs being used to buy T.T. on Berlin at 607. The proceeds are applied in purchase of T.T. on Amsterdam at 166.60. With the florins so obtained the dealer buys pesetas at 40.69. Find the compound arbitrated rate between London and Madrid.

? Pesetas = £1

£1 = 124·15 francs

Fcs. 607 = 100 marks

Marks 166·60 = 100 florins

Fl. 40·69 = 100 pesetas

$$\therefore \frac{124 \cdot 15 \times 100 \times 100 \times 100}{607 \times 166 \cdot 60 \times 40 \cdot 69} = \text{Pesetas } 30 \cdot 1713$$

Deduct Charges.

4 Brokerages at 1 per mille	..	·1207
3 Commissions at $\frac{1}{10}$ %	..	·0566
		<hr/>
		·1773
		<hr/>
		29·994

Compound arbitrated rate = Pesetas 29·994 per £1

Example 6.—London and Berne.

A London dealer is under the necessity of making a large remittance to Switzerland, and, being in close touch with his Continental agents as well as with his own market, can operate at the following rates.—

London on Berlin, Mks. 20·41 $\frac{1}{2}$ —42 per £1.

Berlin on Paris, Mks. 16·325—16·425 per 100 francs.

Paris on Berne, Fcs. 491·5—492·5 per 100 Swiss francs.

What is the compound arbitrated rate established if he uses all of these rates? Allow brokerage at 1 per mille on each purchase or sale, and agent's commission at $\frac{1}{10}$ %.

? Swiss Fcs. = £1

£1 = 20·415 Mks.

Mks. 16·425 = 100 French francs

French fcs. 492·5 = 100 Swiss francs

$$\frac{20 \cdot 415 \times 100 \times 100}{16 \cdot 425 \times 492 \cdot 5} = \text{Fcs. } 25 \cdot 237 \text{ per } \text{£1}.$$

Deduct Charges.

3 brokerages @ 1 per mille	..	·0757
2 commissions @ $\frac{1}{10}$ %	.	·0315
		<hr/>
		·107

Compound arbitrated rate = Fcs. 25·130 per £1.

Arbitrage in Bills.—Arbitrage operations involving long bills of exchange are based on precisely the same principles as those which involve T.T. or sight drafts, but it is, of course, essential to allow, where necessary, for discount and extra stamp duty arising when long bills are used.

Example 7.—London and Paris

Three months' bills on Amsterdam are bought in London at 12·25 and are sent to Amsterdam for rediscount. The proceeds are used to buy T.T. on Milan at Fl. 13·00 per 100 lire, and the lire, in turn, are used to buy cheques on Paris at 74·5 lire per 100 francs. If discount in Amsterdam is 4 %, find the compound arbitrated rate between London and Paris, allowing brokerage at 1 per mille,

Dutch stamp duty at $\frac{1}{2}$ per mille, and agent's commission @ $\frac{1}{8}$ %. Neglect time in transit.

Long rate on Amsterdam ..	12.25
Less 3 months @ 4 % ..	.1225
Stamps, $\frac{1}{2}$ per mille ..	.0061
Commission @ $\frac{1}{8}$ % ..	.0153
	<hr/>
	.144
Approximate short rate on Amsterdam	12.106

Arbitrated rate :—

? Fcs. = £1	
£1 = 12.106 florins	
Fl. 13 = 100 lire	
Lire 74.5 = 100 fcs.	
	<hr/>
	121,060
' =	13×74.5
	<hr/>
	= say, Fcs. 125.00 per £1.

Deduct expenses :—

2 brokerages @ 1 per mille ..	.250
2 commissions @ $\frac{1}{8}$ % ..	.3125
	<hr/>
	.5625

Compound arbitrated rate = Fcs. 124.4375 per £1.

Circuitous Arbitrage.—Compound operations in which the proceeds return to the original or operating centre or currency after passing through three or more centres or currencies, are described as *circuitous arbitrations*.

By circuitous operations it is possible to make profits (and, of course, losses) by a series of exchanges without employing any capital whatsoever. But operations of this kind are nowadays rarely executed, for one thing because the opportunities of making profit are few and far between, and for another, because the dealers have little time to work out complicated operations before one or other of the rates may change unfavourably and so minimise the chances of profit. The following are illustrative examples.

Example 8.—Circuitous Arbitration.

A New York banker invests \$500,000 in marks at 23.69, with which he buys francs at 16.42. The proceeds are applied in the purchase of sterling at 123.95. The sterling is used to buy T.T. on New York at 4.85 $\frac{1}{2}$. What is the gross profit or loss on the operation?

? \$ =	\$500,000
\$23.69 =	100 marks
Mks. 16.42 =	100 francs
Fcs. 123.95 =	£1
	£1 = \$4.855
$500,000 \times 100 \times 100 \times 4.855$	
$23.69 \times 16.42 \times 123.95$	
	<hr/>
	= \$503,471.04
∴ Gross Profit =	\$3,471.04

Example 9.—Circuitous Arbitration.

£10,000 is invested in London in a T.T. on Berlin at 20·43, which is sold in Paris at 609. The proceeds are used to buy lire @ 133, which are sold in New York at 5·23½. With the proceeds T.T. on London is bought at 4·85. What is the profit on the transaction?

$$\begin{aligned}
 &? \text{ £} = \text{£}10,000 \\
 &\text{£}1 = \text{Mks. } 20\cdot43 \\
 &\text{Mks. } 100 = \text{Fcs. } 609 \\
 &\text{Fcs. } 133 = \text{Lire } 100 \\
 &\text{Lire } 100 = \$5\cdot2325 \\
 &\$4\cdot85 = \text{£}1 \\
 &= \frac{\text{£}10,000 \times 20\cdot43 \times 609 \times 100 \times 5\cdot2325}{100 \times 133 \times 100 \times 4\cdot85} \\
 &= \text{£}10,092\cdot564 \\
 &\text{Less 5 Brokerages @ 1 per mille} \quad \dots = \quad \underline{50\cdot463} \\
 &\qquad \qquad \qquad \qquad \qquad \qquad \text{£}10,042\cdot101 \\
 &\therefore \text{ Net profit} = \text{£}42 \quad 2\text{s. } 0\text{d.}
 \end{aligned}$$

Example 10.—Circuitous Operation.

£10,000 is invested in T.T. on Berne at 25·29, which is sold in Amsterdam at 48·22. The proceeds are used to buy sterling at 12·10. Find the profit or loss on the operation, allowing brokerage 1 ‰ on each transaction.

$$\begin{aligned}
 &? \text{ £} = \text{£}10,000 \\
 &\text{£}1 = \text{Fcs. } 25\cdot29 \\
 &\text{Fcs. } 100 = \text{Fls. } 48\cdot22 \\
 &\text{Fls. } 12\cdot10 = \text{£}1 \\
 &= \frac{\text{£}10,000 \times 25\cdot29 \times 48\cdot22}{100 \times 12\cdot1} \\
 &= \text{£}10,078\cdot378 \\
 &\text{Less 3 Brokerages @ 1 per mille} \quad \dots = \quad \underline{30\cdot235} \\
 &\qquad \qquad \qquad \text{Proceeds} \quad \dots = \quad \underline{\text{£}10,048\cdot143} \\
 &\text{Net profit} = \text{£}48 \quad 2\text{s. } 10\text{d.}
 \end{aligned}$$

The above example worked in full appears as follows:—

£10,000 invested in francs @ 25·29, buys	..	..	..	Fcs. 252,900
Less Brokerage in London, 1 per mille	..	.	..	252·9
				<u>252,647·1</u>
Fcs. 252,647·1 sold in Amsterdam @ 48·22 realise	..	..	..	Fl. 121,826·43
Less Brokerage in Amsterdam, 1 per mille	..	..	..	121·83
				<u>121,704·60</u>
Fl. 121,704·6 invested in sterling at 12·10 buys	..	..	..	£10,058·231
Less Brokerage in Amsterdam, 1 per mille	..	.	..	10·058
Amount received in London	..	..	..	<u>£10,048·173</u>

The slight difference is accounted for by the fact that, in the first method, the three brokerages are calculated on the final proceeds, whereas, in the second method, brokerage in the last two cases is calculated on the proceeds less one and two brokerages respectively.

CHAPTER XXIV

EXCHANGE OPERATIONS INVOLVING FORWARD RATES

THE principles involved in calculations connected with the purchase and sale of forward currency are precisely the same as those which apply to dealings in spot currency, subject, however, to the fact that the dealer who is carrying out a forward transaction, either on his own behalf or on behalf of his customer, must keep well before him not only the current market rates for the foreign currency in question, but also the relationship between the rates of interest ruling in the foreign centres concerned. This will be clear on a consideration of the following examples.

Example 1.—If money rates in New York are 1 % per annum higher than London, at what rate would you expect forward dollars for three months' delivery to be quoted in London as against a spot rate of 4·86½?

Since interest rates are 1 % higher in New York than in London, London forward rates on New York should be at a *discount* of approx. 1 % per annum on the rate, i.e.—

$$\begin{array}{lll} 1 \% \text{ per annum on } \$4\cdot8625 & . & = \cdot048625 \\ 1 \% \text{ per 3 mos. on } \$4\cdot8625 & .. & = \cdot012156 \end{array}$$

∴ London forward rate on New York = 1½ c. discount per three months.

Example 2.—From the following data, calculate at what rate a banker, operating with £1,000, can sell American dollars three months' forward "outright": Dealer's spot rate, \$4·86½-½; interest in London 5 %, in New York 4 %.

Since interest rates in New York are 1 % *lower* than in London, forward rates on the former centre are likely to be at a *premium* in terms of sterling.

Dealer's selling rate for spot	.. ..	\$4·860625
(Assumed to allow for his profit)		
Premium on three months' forward dollars		
(3 months @ 1 % p.a.)	.. ..	·012152
Three months' forward "outright" rate		<u>\$4·848473</u>
Say, \$4·84½d. per £1.		

Example 3.—If the market quotation in London for three months' forward dollars is ½ c. premium on a spot rate of 4·86½, and the value of three months'

money in London is 5 %, what is the probable current rate for three months' money in New York?

As London three months' rate on New York is at a premium, the likelihood is that interest rates in the latter centre are lower than in the former.

Premium on \$4·8675 for 3 months is $\frac{1}{2}$ c.

∴ Premium on \$4·8675 for 12 months is 2·5 c.

$$\begin{aligned} &= \frac{0.025 \times 100}{4.8675} \% \\ &= .513 \%. \end{aligned}$$

∴ The probability is that the current rate for three months money in New York is about $\frac{1}{2}$ % under the London rate, i.e., about $4\frac{1}{2}$ % per annum.

Example 4.—What rate should a London dealer apply in the purchase of dollars "outright" for delivery two months ahead, if the market spot rate is $4\cdot86\frac{1}{16}$, and forward dollars are quoted $\frac{1}{2}$ cent discount per month? Reckon the dealer's profit at $\frac{1}{16}$ cent, and other expenses (including brokerage) at $\frac{1}{16}$ cent.

Market buying rate for spot	\$4·86 $\frac{1}{16}$
Plus brokerage, etc.	$\frac{1}{16}$
Dealer's profit	$\frac{1}{16}$
Dealer's spot buying rate	<u>4·86$\frac{1}{8}$</u>
Two months' discount (@ $\frac{1}{8}$ c.	$\frac{1}{4}$
Dealer's "outright" buying rate, two months' forward	<u>\$4·86$\frac{3}{8}$</u>

Example 5.—Rates, etc., as in the last example, calculate the rate which a dealer should apply in selling to a customer \$50,000 "outright," one month forward.

Market selling rate for spot	\$4·86 $\frac{1}{16}$
Less Brokerage, $\frac{1}{16}$	$\frac{1}{16}$
Dealer's profit, $\frac{1}{16}$	
Dealer's spot selling rate	<u>4·85$\frac{3}{8}$</u>
One month discount (@ $\frac{1}{8}$ c.	$\frac{1}{8}$
Dealer's one month forward selling rate	<u>\$4·86$\frac{3}{8}$</u>

Example 6.—A customer offers a London dealer 50,000 lire three months' forward. Calculate the rate which the dealer will apply, if the market spot rate is 92·78·83, and forward lire are quoted 15-10 c. per month under spot. Allow 5 centesimi in the rate for dealer's profit, brokerage, and other expenses.

Market spot buying rate	92·83 lire
Allowance for profit, etc.	<u>·05</u>
Dealer's buying rate	92·88
Three months' premium (@ 10 c. per month	<u>·30</u>
Rate to be applied	<u>92·58 lire per £1.</u>

Example 7.—Japanese currency is quoted in London on a certain date at $24\frac{3}{4}$ — $1\frac{1}{2}$, and a dealer is offered 100,000 yen two months' forward "outright." What is the sterling equivalent if the forward rate on Japan is quoted at $\frac{1}{16}$ premium per month, and the dealer reckons his profit at $\frac{1}{16}$ d. in the rate?

Market buying rate per yen	.. ..	24½d.
Dealer's profit	.. ..	½d.
Dealer's buying rate	.. ..	24½d.
Add 2 months' premium @ ½d. per month	.. ..	½d.
Rate to be applied to the purchase	.. ..	24½d.

$$\text{Sterling equivalent } £ \frac{100,000 \times 24.46875}{240}$$

$$= £10,195 \text{ 6s. 3d.}$$

Example 8. Option Deal in Francs.

A dealer buys from a customer French francs for delivery at seller's option during August, and covers by selling spot at 124 for 31st July. The customer notifies the dealer that the francs will not be delivered until the end of August. If forward fcs. one month are 35 to 40 discount, while the Paris overdraft rate is 8 % p.a., and London money is worth 4 %, what should the dealer do, and why?

Paris overdraft rate	.. ..	= 8 % p.a.
London money rate	.. ..	= 4 % p.a.
Difference in cost of funds	.. ..	= 4 % p.a.
4 % p.a. on 124 for 1 month		= 41½ c.

Therefore if the market quotes one month forward Paris at 35 to 40 discount, it is 1½ c. cheaper for the dealer to buy spot and sell one month forward at 40 than to have an overdraft in Paris at 8 %.

Investment Operations with Forward Exchange Secured.—The following are typical examples of modern investment operations, protected by forward deals, undertaken by bankers with the object of taking advantage of differences in the rates of interest ruling in various financial centres at the same time. The examples are self-explanatory, and it will be seen that they may be of almost infinite variety.

Example 9.—Investment in Kobe with Forward Exchange Guaranteed.

The rate of interest in Kobe being 6½ % per annum, a London banker wires his agent in the former centre to sell T.T. £50,000 on London at 21½d. per yen, placing the proceeds on fixed deposit in Kobe for 90 days. In London the anticipated total is sold 90 days forward at 21½d. If the London interest rate is 5 %, show the net resulting profit.

£50,000 T.T. on London sold in Kobe @ 21½ produces	..	Yen 551,724.14
Int. thereon for 90 days @ 6½ % p.a.	.. ..	8,502.6
Total	.. ..	Yen 560,226.74
This total sold forward in London @ 21½d. yields at maturity		£50,916 8 10
Deduct £50,000 plus 90 days' interest at 5 % p.a.	.. ..	50,616 8 9
Net resulting profit	.. ..	£300 0 1

Example 10.—U.S. Dollar Deposit Invested in London with Forward Exchange Secured.

A London banker is offered a U.S. dollar deposit fixed for three months at 3½ % per annum, the forward rate on New York being 1 cent premium,

3 months; spot rate 4·86. Determine the rate at which sterling must be usable in London to make the deal profitable, and find the approximate net profit if the amount is \$486,000 and interest on 3 mos.' Treasury bills $4\frac{1}{2}$ % per annum.

If the spot rate is 4·86, the 3 mos. forward rate at 1 c. premium is 4·85.

∴ On \$4·85 the loss for 3 mos. is \$.01

∴ On \$100 the loss for 1 year is $\frac{$.01 \times 100 \times 4}{4 \cdot 85}$
 $= .825$ % per annum (approx.).

If the deal is to be profitable, sterling must be usable in London at a margin over :—

$3\frac{1}{2}$ % + .825 % = 4·325 % (approx.).

If, therefore, three months' Treasury or bank bills are obtainable in London at from $4\frac{1}{2}$ to $4\frac{3}{4}$ % per annum, the offer of the dollar deposit would be acceptable.

Illustration.

\$486,000 T.T. on New York sold in London at 4·86 yields	..	£100,000
This sum, invested in 3 mos.' Treasury bills at $4\frac{1}{2}$ % per annum yields	.. .. .	1,125
Total	.. .. .	<u>£101,125</u>
Amount of deposit	.. .. .	= \$486,000
$3\frac{1}{2}$ % for 3 mos.	.. .. .	= 4,252·5
		<u>\$490,252·5</u>
This amount bought forward at 4·85 costs at maturity	.. .. .	101,083
Giving a profit, excluding expenses, of	.. .. .	<u>£42</u>

Example 11.—Investment of New York Funds in London.

The New York rate for 3 mos.' deposits is $3\frac{3}{8}$ % per annum, while the London selling rate for 3 mos. bank bills is $4\frac{1}{2}$ % per annum. If exchange rates are T.T. 4·86 and 3 mos. forward $\frac{7}{8}$ - $\frac{3}{4}$ c. premium, what is the gain or loss per cent. per annum by selling spot and buying forward, brokerage $\frac{1}{16}$ c. ? Calculate the outturn of an investment of \$486,000.

Difference in interest rates = $4\frac{1}{2}$ - $3\frac{3}{8}$ % = $\frac{7}{8}$ % per annum.
 $= \frac{7}{32}$ % per quarter.
 $\frac{7}{32}$ % in \$ rate at 4·86 = .01063 \$.
 $= 1\frac{1}{16}$ c. in the rate.

∴ Selling spot and buying 3 mos. forward at $\frac{1}{8}$ c. (middle rate), leaves a margin of $1\frac{1}{16}$ c.- $\frac{1}{8}$ c.- $\frac{1}{16}$ c. (brokerage) = $\frac{1}{16}$ c. in the rate, or

$\frac{5}{16}$ % per 3 mos. (approx.) = $\frac{5}{8}$ % per annum.

If the forward dollar rate goes to a higher premium the operation becomes too fine to show a reasonable profit.

Illustration.

\$486,000 T.T. on New York sold in London at 4·86 spot yields	£100,000
This sum invested in 3 mos.' bank bills at $4\frac{1}{2}$ % p.a. yields	.. .. . 1,125
Total	.. .. . <u>£101,125</u>

3 mos. forward rate, less brokerage,

$$= \$4.86 - \frac{1}{8} \text{ c.} - \frac{1}{8} \text{ c.} = \$4.85\frac{1}{4}.$$

£101,125 sold forward at \$4.85 $\frac{1}{4}$ yields ..	..	..	\$490,630
Original deposit .. .. .	..	..	\$486,000
In New York this would yield 3 mos. @ 3 $\frac{1}{2}$ %	=	4,405	
		<hr/>	490,405
Profit	=		<u>\$225</u>
or approximately $\frac{1}{16}$ % per annum.			

Example 12.—Borrowing Sterling by Selling Cheque on New York and Covering by Forward T.T.

Over the turn of the half-year ending 30th June, 1925, 7-day money in London was worth 5 %, while New York T.T. rate was 4.86, the margin for selling cheque on New York was $\frac{1}{8}$ c. over T.T. and the short forward rate for July 2nd was $\frac{1}{8}$ c. under T.T. The American mail left London on June 26th for delivery in New York on July 2nd. If a London dealer wished to borrow sterling over the turn of the half-year, would it have been cheaper to borrow money in the London market or to sell cheque in New York (for which he receives sterling at once) covering by a forward T.T. purchase, valeur compensée July 2nd?

Dealer *sells* cheque at $\frac{1}{8}$ c. over T.T., and *buys* 2nd July at $\frac{1}{8}$ c. under T.T., a total charge of $\frac{1}{4}$ c. in the rate.

Money in London is worth 5 % per annum.

6 days at 5 % p.a. is approx. $\frac{1}{12}$ of 1 %.

$\frac{1}{12}$ % of \$4.86 = \$.00405

= $\frac{1}{4}$ c. (approx.) in the rate.

Therefore the dealer can save $\frac{1}{2}$ c. - $\frac{1}{4}$ c.

= $\frac{1}{4}$ c. per £ by selling cheque and buying forward T.T.

Example 13.—Investment in Vienna Bills with Forward Exchange Secured.

The following is an actual example of an investment operation made from London.

£50,000 T.T. on London was sold in Vienna @ 34.48, yielding S. 1,724,000.00

Which was placed to the credit of Vienna *Nostro* Account

Bills to the value of S. 1,700,000 having an average of 3 mos. to run were purchased at a discount of 10 %, and the schilling account was debited with their cost, viz. ..

S. 1,700,000

Less total discount 43,444.44

1,656,555.56

Balance

S. 67,444.44

This balance was placed on fixed deposit for 3 mos. at 10 % per annum (free of all taxes) yielding

S. 1,686.11

The balance of the deposit, S. 67,444.44, and the face amount of the bills, S. 1,700,000, were sold forward 3 mos. at 34.76 $\frac{1}{2}$, returning to London at maturity.. ..

£50,837 18 8

This shows a profit of £837 18s. 8d., or approximately 6.70 % per annum,

London brokers quote Madrid one month forward at 3.5 premium. During a telephone call to Berlin, a London dealer is informed that one month pesetas in that centre are quoted at 6.8 premium. He accordingly swaps pesetas 500,000 in Berlin at 6 centimos, and covers in London at the middle, i.e., 4 centimos. Calculate his profit on the operation if the London spot rate is 34.21.

In Berlin:—

500,000 pesetas bought spot at the equivalent of 34·21, cost	£14,615 12 2
500,000 pesetas sold one month at the equivalent of 34·15,	
yield	14,641 5 9

In London:—

500,000 pesetas sold spot at 34·21, yield	14,615 12 2
500,000 pesetas bought one month at 34·17, cost .	14,632 14 4
Gross profit	£8 11 5

From this total, certain expenses would have to be deducted,
viz. :—

One "pay" and one "receive" cable (the forwards being settled by mail), say ..	£0 8 0
Brokerage on London swap at 5/- per Ptas. 100,000	1 5 0
Telephone call (assuming that the London dealer originated it and that no other business was done), say	10 0
Special "overdraft commission" charged by Spanish banks where the payment is not covered a full day ahead ($\frac{1}{100}$ th per mille on two payments of Ptas. 500,000 each) Ptas. 50·00, or roughly	1 9 3
	<hr/>
Net profit	3 12 3
	<hr/>
	£4 19 2

A margin of two centimos between the forward swaps therefore gives a net profit of £4 19s. 2d. If, however, a margin of only one centimo were obtained, it is clear that the net profit would be only 13/6d. As even one centimo is hard to make nowadays, the difficulties of arbitrage under present conditions are obvious.

Example 6.—Temporary Use of Sterling by Means of a Purchase of a Guaranteed Mail Transfer and Sale of Proceeds Forward.

During 1929 certain restrictions were placed on the employment of foreign funds in the New York Call Money Market, and, as a result, it was not always possible for a London bank, wishing profitably to use surplus sterling for a week or 10 days, to adopt what had become a frequent practice and utilise the funds in New York, by buying spot and selling forward dollars, and using the spot on the New York Call Money Market at the higher rates prevailing there.

The London offices of American and Canadian banks have greater facilities in this direction, however, and they are usually ready to buy spot dollars and sell guaranteed mail transfers for payment in New York on a stated date, the sterling payment here being "compensated."

If, therefore, the forward margin will permit and the parties can agree on rates, a three-cornered deal can be carried out as follows:—

A wishes to use sterling for 10 days at about 5 %.

B will sell spot dollars and buy 10 days forward, and wants $\frac{1}{2}$ c. in his favour for the "swap" (about 1 % p.a.).

C (the investor) will buy spot dollars and sell G.M.T. on New York 10 days ahead, being willing to give away $\frac{1}{2}$ c. for the 10 days' run (about 6 % p.a.).

If, therefore, the spot rate is assumed to be 4·86:—

C buys spot dollars for the 10th from *B* and sells *A* G.M.T. for the 20th (i.e., he pays sterling in London on the 10th, dollars in New York on the 20th).

B sells dollar T.T. deliverable 10th to *C* at 4·86, and buys dollar T.T. deliverable 20th from *A* at $4\cdot86\frac{1}{2}$.

A buys G.M.T. from *C* due 20th at $4\cdot86\frac{1}{2}$, i.e., he pays sterling on the 10th and receives dollars on the 20th, selling forward dollars to cover for the 20th.

On the 10th.

A pays *C* sterling for G.M.T.

C uses sterling to pay for T.T. from *B*.

C receives dollars in New York from *B*.

On the 20th.

C uses dollars received from *B* on 10th to meet G.M.T. due to *A*.

A uses dollars from *C* to meet forward contract due to *B*.

B pays *A* sterling for forward T.T.

∴ *A* has used sterling from 10th to 20th for $\frac{1}{16}$ c. (practically 5 % p.a.).

B has had use of sterling but loses use of dollars for 10 days and receives $\frac{1}{2}$ c. compensation. (It evidently must suit him to have sterling instead of dollars or he would not do the deal.)

C has had use of dollars for 10 days without cost of sterling, but has to give away $\frac{1}{16}$ c. (6 % p.a.), so he can evidently use dollars at, say, 7 % p.a.

CHAPTER XXV

MISCELLANEOUS PROBLEMS ON THE EXCHANGES

THE following worked examples, based upon the explanations and examples in the foregoing pages, have been chosen at random from various examination papers in order to afford the reader a variety of examples for study and practice.

In certain cases, exchange quotations which are now obsolete are included in the examination questions reproduced, but these have not been altered as no change of principle is involved

Unless otherwise stated, the reference "*Inst. of Bankers*" at the end of certain questions refers to the English Institute, and the two Parts of the Associate Examination of that Institute are indicated by the abbreviations "I" and "II" respectively.

Eastern Currencies.

Example 1.—Find cost of 1,000 dollars @ 5s. 1½d. per dollar.

Solution:

$$\begin{array}{rcl} 1,000 \text{ at } 5\text{s.} & = & \text{£}250 \\ 1\frac{1}{2} = \frac{3}{2} \text{ of } 5\text{s.} & = & \begin{array}{r} 6 \quad 5\text{s.} \\ \hline \end{array} \\ \text{Answer: Cost} & = & \underline{\text{£}256 \quad 5\text{s.}} \end{array}$$

Example 2.—Find equivalent in taels of £217 10s. 6d. @ 2s. 6½d per tael.

Solution:

$$\begin{array}{rcl} \text{£}217 \text{ 10s. 6d.} & = & 217.525 \\ 2\text{s. } 6\frac{1}{2}\text{d.} & = & .128125 \\ \text{No. of taels} & = & \frac{217.525}{.128125} \\ & = & 12'8'1'2'5)217525(1697.75 \\ & & \underline{89400} \\ & & 12525 \\ & & \underline{994} \\ & & 97 \\ & & \underline{7} \end{array}$$

Answer: 1.697.75 taels.

Example 3.—Standard silver in London is worth 3s. 6d. per oz. troy. If a rupee contains $\frac{3}{4}$ oz. of silver, $\frac{1}{12}$ ths fine, find the metallic parity between a sovereign and a rupee.

Solution:

* 1 oz of standard silver contains $\frac{3}{16}$ oz. of fine silver.

1 rupee contains $\frac{3}{16} \times \frac{1}{12}$ oz. of fine silver
 $= \frac{1}{64}$ oz. of fine silver.

Value of $\frac{3}{16}$ oz. of fine silver = 3s. 6d.

Value of $\frac{1}{64}$ oz. of fine silver = $\frac{3}{16} \times \frac{1}{12} \times \frac{40}{1}$ s.

∴ Value of silver in 1 rupee = $\frac{3}{16} \times \frac{1}{12}$ s.

∴ £1 = $20 \times \frac{3}{16} \times \frac{1}{12}$ rupees.

= 15.376 rupees.

∴ Metallic Parity between sovereign and rupee is:—

£1 = 15.376 rupees.

i.e., 15 rupees 6 annas.

Also by Chain Rule (preferable method).—

? Rupees = £1

£1 = 20s.

3.5s. = $\frac{3}{16}$ oz. of fine silver

Oz fine silver $\frac{3}{16} \times \frac{1}{12}$ = 1 rupee

$\frac{20 \times 37 \times 96}{40 \times 3.5 \times 33}$

= 15.376 rupees

= 15 rupees 6 annas.

NOTE.—Answers expressed in Indian currency should always be given in rupees and annas, and not in decimal form.

Example 4.—Find cost of T.T. to India for Rs. 1,000 at 2s. 3½d. per rupee.

Solution:

Cost of 1,000 @ 2s. = £100

Cost of 1,000 @ 3d. = 12 10 0

Cost of 1,000 @ ½d. = 1 0 10

Cost of remittance £113 10 10. Answer.

Example 5.—A Bombay merchant owes Paris Fcs. 10,000, and a bill on Paris can be obtained @ 2.5 as. per franc. If exchange on London is 2s. 6d., and London quotes Paris at Fcs. 50.5, which is the best way of payment, direct or via London? Neglect charges

Solution:

Payment direct costs 25,000 as.

= Rs. 1,562.5

Indirect.

? Rupees = 10,000 francs

50.5 = 20s.

2.5 = 1 rupee

= Rs. 1,584.15

Payment direct is therefore cheaper by

Rs. 21.65

i.e., 21 rupees 10 annas.

Example 6.—If Rs. 8.5 = £1, and a Shanghai tael is worth 8s. 3d., how many rupees must be sent from Calcutta to Shanghai to pay a debt of 1,000 taels?

Solution:

? Rupees = 1,000 taels

1 tael = £.4125

£1 = Rs. 8.5

= 8.5 × 412.5

Answer: = 3,506 rupees 4 annas.

Example 7.—For what amount would you issue a draft on Lucknow in rupees, against payment of £526 18s. 7d., the rupee rate being 1s. $3\frac{3}{4}$ d.? In your calculations make an allowance of $\frac{1}{8}$ per cent. commission paid by the customer. (*Inst. of Bankers, I, 1922.*)

Solution:

$$\begin{aligned}
 &£526 \text{ 18s. 7d.} = £526.929 \\
 &\text{Deduct charges } \frac{1}{8} \text{ per cent.} = \frac{.329}{526.600} \\
 &\text{Rate of exchange} = 1\text{s. } 3\frac{3}{4}\text{d.} = 15.843\text{d.} \\
 \therefore \text{Amount of draft} &= \frac{526.6 \times 240}{15.843} = \frac{42128.0}{5.281} \\
 \text{Answer:} &= 7,977 \text{ rupees.}
 \end{aligned}$$

Example 8.—The unit of exchange between Japan and London is, by general consent, the rate for telegraphic transfers on London, and in practice the demand rate is based on the T.T. rate. Given a rate for telegraphic transfers, Kobe on London, 2s. $1\frac{1}{4}$ d. per yen, find the rate of exchange for demand bills. (Time of mail 45 days; London discount rate $3\frac{1}{2}$ %.) (*Inst. of Bankers, II, 1924*)

Solution:

The rate for T.T. Kobe on London is 2s. $1\frac{1}{4}$ d. Demand bills will be cheaper, and the rate must therefore be adjusted by adding interest at $3\frac{1}{2}$ per cent for 45 days:—

$$\begin{aligned}
 &\text{T.T. rate Kobe on London, 2s. } 1\frac{1}{4}\text{d.} = 25.75\text{d.} \\
 &45 \text{ days' interest at } 3\frac{1}{2} \% \\
 &\frac{25.75 \times 7 \times 45}{73000} = \frac{8111.25}{73000} \\
 &\cdot 0811125 \text{ (}\frac{1}{1000000}\text{th)} \\
 &\cdot 0270375 \text{ (}\frac{1}{4}\text{ of above)} \\
 &\cdot 0027037 \text{ (}\frac{1}{10}\text{ of above)} \\
 &\cdot 0002704 \text{ (}\frac{1}{10}\text{ of above)} \\
 &\cdot 1111241 \\
 &\cdot 00001 \text{ (less } \frac{1}{100000}\text{ of total)} \\
 &\cdot 1111141 \qquad \qquad \qquad = \frac{\cdot 1111}{25.8611\text{d.}}
 \end{aligned}$$

Answer: = 2s. $1\frac{1}{4}$ d.

Example 9.—If exchange Shanghai on Hong Kong is quoted at 73.33 taels for \$100, and Hong Kong on India is quoted at \$100 for $137\frac{1}{2}$ rupees, and the sterling quotation for rupees is 1s. 4d., what is the sterling value of the tael? Chain rule may be used to arrive at the result. (*Inst. of Bankers, II, 1922.*)

Solution:

$$\begin{aligned}
 &\text{How many pence} = 1 \text{ tael} \\
 &\text{If } 73.33 \text{ taels} = 100 \text{ dollars} \\
 &\text{If } 100 \text{ dollars} = 137\frac{1}{2} \text{ rupees} \\
 &\text{and } 1 \text{ rupee} = 16\text{d. ?} \\
 &\frac{100 \times 275 \times 16}{73.33 \times 100 \times 2} = \frac{2200}{73.33} \\
 &\qquad \qquad \qquad = 30.001 \\
 &\text{Answer:} = 2\text{s. } 6\text{d.}
 \end{aligned}$$

Example 10.—Remit 1,000 rupees from India to London, then buy Dutch florins in London, remit them to Amsterdam, purchase marks there and send them to Berlin, then instruct the German correspondent to remit them by sterling draft to London. Rates of exchange to be taken for conversion in each case are:—

Bombay on London 1s. 5½d. per rupee.
 London on Amsterdam 11 fl. 40 c. per £1.
 Amsterdam on Berlin, 4 fl. 85 c. per 100 marks.
 Berlin on London 230 marks per £1.

The final answer to be the amount of the sterling draft. (*Inst. of Bankers, II, 1921.*)

Solution:

It must be assumed that this is a banking transaction solely, i.e., not for account of a customer as the proceeds remain in sterling draft, and that the Rs. 1,000 is a nominal amount.

$$\begin{aligned}
 & \text{? } £ = 1,000 \text{ R.} \\
 & 1 \text{ R.} = 17 \cdot 25 \text{ d.} \\
 & 240 \text{ d.} = 11 \cdot 4 \text{ fl.} \\
 & 4 \text{ } 85 \text{ fl.} = 100 \text{ M.} \\
 & 230 \text{ M.} = £1. \\
 & \frac{1000 \times 17 \cdot 25 \times 11 \cdot 4 \times 100}{240 \times 4 \cdot 85 \times 230} \\
 & = \frac{28500}{388} = 73 \cdot 454
 \end{aligned}$$

Answer = £73 9s. 1d.

Example 11.—An Indian customer sends to you from Bombay a 90 days sight bill for £30,000, with instructions to get the bill discounted on the London market immediately after acceptance, and then to remit the proceeds by telegraphic transfer to Bombay. Show the amount of the proceeds obtained in London (Bank rate 5½ %, stamp duty 1s. per £100, your commission ¼ %), and the sum, in rupees, remitted to India. Rate for remitting proceeds to Bombay, 1s. 3¾d. per rupee. (*Inst. of Bankers, II, 1922.*)

Solution:

Amount of bill	..	..	..	..	..	=	£30,000	0	0
Less 93 days' interest at $5\frac{1}{2}\%$	..	..	..	..	..	=	£420	8	3
Stamp duty, 1s. %	..	..	..	..	..	=	15	0	0
Commission, $\frac{1}{4}\%$	..	..	..	..	..	=	75	0	0

Proceeds to be remitted to Bombay £29,489 11 9

$$\text{Amount in rupees} = \frac{29489 \cdot 5875 \times 240 \times 4}{63}$$

Answer: = 449365 rupees 2 annas.

Example 12.—A banker in Shanghai sells T.T. on London at 2s 4d, and covers his sales by purchasing 4 mos.' bills at 2s. 4½d. If London discount rate is 4 %, what is his net profit per cent. on the transaction? Assuming that a month elapses between the time of drawing the T.T. and arrival of the bills in London, what rate per cent. per annum is earned? Allow brokerage @ ½ %, and stamp @ ½ per mille.

Solution:

$\frac{5}{8}$ d. on 2s. 4d. = £2 4s. 8d. per cent.,	£	s	d.
\therefore Gross profit per cent. =	2	4	8
	£	s	d.
Less 4 mos.' discount @ 4 %	1	6	8
Brokerage @ $\frac{1}{8}$ %	2	6	
Stamp $\frac{1}{2}$ per mille	1	0	
	<hr/>		
Net profit per cent.	1	10	2
	<hr/>		
	14	6	

This profit is made in a transaction covering one month,

\therefore Rate per annum = 14s. 6d. \times 12

Answer. = £8 14s. per cent.

Example 13.—Find the amount realised in pence per tael by purchasing silver .994 fine in Shanghai at 111.10 taels currency per 100 taels weight and selling it in London at 24d. per oz. standard (.925 fine). Allow for charges at $\frac{3}{4}$ %. (1 tael weighs 579.84 grains.)

Solution.

? pence = 1 tael

if 111.10 taels currency = 100 taels weight

1 tael weight = 579.84 grains .994 fine

.925 grain fine = 1 grain standard

480 grains standard = 24 pence?

\therefore Amount realised in pence per tael, neglecting charges

$$= \frac{100 \times 579.84 \times .994 \times 24}{111.10 \times .925 \times 480}$$

$$= 28.042d.$$

$$\text{Less charges (at } \frac{3}{4} \% \text{)} \quad = \quad .210$$

$$\text{Amount realised} \quad = \quad \underline{27.832d.} \text{ per tael. } \textit{Answer}$$

Premium or Discount.

As is pointed out on page 96, the currency unit of one country is frequently referred to as being at a *premium* or at a *discount* in another centre, i.e., when compared with the currency of that centre. Thus, the franc may be at a discount of, say, 15 % in New York, while the dollar may be at a premium of, say, 4 % in London.

This premium or discount is calculated by comparing the *current* quotation of the currency unit concerned with its *normal* or mint par value *in terms of the home currency*. The arithmetical rule may be stated as follows:—

The premium or discount per cent. on any foreign unit in a given centre, is obtained by expressing the *difference* between the current exchange value of the unit and its mint par value, *both being stated in terms of the currency of the centre concerned* (i.e., the *home currency*), as a percentage of the mint par value of the unit *in the home currency*.

This rule may be expressed by the following general formula applicable in all cases where the quotation and mint par are *in terms of home currency to the foreign unit*:—

$$\text{Premium or Discount \% on any foreign unit} = \frac{\text{Mint Par} \sim \text{Quotation}}{\text{Mint Par}} \times 100$$

(NOTE.—The symbol “ \sim ” = the difference between.)

Example 14.—Sterling in New York.

In New York, London is quoted at 4.75. What is the premium or discount per cent. on sterling?

The quotation, 4.75, and the mint par, 4.8665, are already expressed in the home currency, hence:—

$$\begin{aligned} \text{Discount \% on Sterling} &= \frac{4.8665 - 4.75}{4.8665} \times 100 \\ &= 2.4 \%. \end{aligned}$$

NOTE.—A brief comparison of the current quotation with the mint par will at once indicate whether the unit concerned stands at a premium or discount. Thus, if sterling stands at 4.75 in New York, it is clearly *below* its mint par value in terms of dollars, and hence at a discount. This brief consideration will also at once indicate how the subtraction, for determining the *difference*, is to be set out in the calculation.

Example 15.—Sterling in Paris.

In Paris, London is quoted at 125.15. What is the premium per cent. on sterling?

Solution:

$$\begin{aligned} \text{Premium \%} &= \frac{125.15 - 124.2134}{124.2134} \times 100 \\ &= \frac{93.66}{124.2134} \\ &\quad 1242)9366(.75 \\ &\quad \quad 672 \\ \text{Answer: } &.75 \%. \end{aligned}$$

In the two examples given the calculation is rendered especially simple by the fact that the rates of exchange and the mint par values are already expressed in terms of the *home* currency, as required by the rule.

When, however, the rates and the parity are quoted in *foreign* units from the point of view of the centre in which the premium or discount exists, the quotations must be converted into *home* units

before the calculation can be made. This is done quite simply by expressing the rates as a fraction with 1 as the numerator. Thus, if

$$\$4.8665 = £1, \text{ then } \$1 = £\frac{1}{4.8665}; \text{ and if}$$

$$\text{Fcs. } 124.5 = £1, \text{ then } 1 \text{ fc.} = £\frac{1}{124.5}, \text{ and so on.}$$

The general rule can now be applied.

Example 16.—The Franc in London.

Prior to the devaluation of the franc in 1928, the London T.T. rate on Paris stood at 124.5. What was the discount on the franc in London, if the mint par was 25.2215 francs per £1?

Solution:

$$\text{Current value of franc in London} = £\frac{1}{124.5}$$

$$\text{Mint par or normal value of franc in London} = £\frac{1}{25.2215}$$

(NOTE.—The *second* of these fractions is the *larger*.)

$$\therefore \text{Discount \%} = \frac{\frac{1}{25.2215} - \frac{1}{124.5}}{\frac{1}{25.2215}} \times 100$$

$$* = \frac{124.5 - 25.2215}{124.5} \times 100$$

$$\text{Answer:} = \frac{99.2785}{124.5} = 79.74 \%$$

It will be observed that when the current rate and the parity are expressed in *foreign* units from the point of view of the centre in which the premium or discount exists, then the premium or discount is actually calculated by expressing the *difference* between the current rate and the mint par as a percentage, not of the parity, but of the *current rate*. In the absence of the foregoing explanation this

* NOTE.—

$$\frac{1}{25.2215} - \frac{1}{124.5}$$

$$\begin{aligned} &= \frac{\frac{1}{124.5} - \frac{1}{25.2215}}{\frac{1}{124.5}} \times 100 \\ &= \frac{124.5 - 25.2215}{124.5} \times \frac{25.2215}{1} \end{aligned}$$

$$= \frac{124.5 - 25.2215}{124.5} \text{ (cancelling out } 25.2215)$$

This may be expressed algebraically:

$$\begin{aligned} \frac{\frac{1}{a} - \frac{1}{b}}{\frac{1}{a}} &= \frac{b - a}{ab} \times a \\ &= \frac{b - a}{b} \end{aligned}$$

apparently different basis might prove confusing, but so long as it is remembered that both cases arise from the original rule that the values must be expressed in terms of *home* units, the following formulæ may be memorised:

Calculation of Premium and Discount.

1. WHEN EXCHANGE IS QUOTED IN THE HOME CURRENCY TO THE FOREIGN UNIT CONCERNED.

$$\text{Premium or Discount \% on Foreign unit} = \frac{\text{Mint Par} - \text{Quotation}}{\text{Mint Par}} \times 100$$

2. WHEN EXCHANGE IS QUOTED IN FOREIGN CURRENCY TO THE HOME UNIT.

$$\text{Premium or Discount \% on Foreign unit} = \frac{\text{Mint Par} - \text{Quotation}}{\text{Quotation}} \times 100$$

Example 17.—Sterling and the Peso.

Exchange between London and Buenos Aires stands at 47.5. What is the premium on sterling in Buenos Aires and the discount on the peso in London?

Solution:

(a) PREMIUM ON STERLING IN BUENOS AIRES.—The exchange on London in Buenos Aires is quoted in the foreign currency, sterling, hence:

$$\text{Premium \% on Sterling} = \frac{47.577 - 47.5}{47.5} \times 100$$

$$\text{Answer:} = .1621 \%$$

(b) DISCOUNT ON THE PESO IN LONDON.—Here the rates are expressed in the *home* currency, hence:

$$\text{Discount \%} = \frac{47.577 - 47.5}{47.577} \times 100$$

$$\text{Answer:} = .1618 \%$$

Example 18.—Sterling in Buenos Aires.

English money being at a discount of 35 % in Buenos Aires, what is the approximate rate of exchange if the par value is 47.58 pence? What is the cost of a bill on London for £1,000?

Solution:

If sterling is at a discount, the peso must be worth *more* pence than the parity.

$$\therefore \text{Discount on Sterling} = \frac{\text{Quotation (Q)} - 47.58}{\text{Quotation}} \times 100$$

$$\therefore 35 = \frac{(Q - 47.58) 100}{Q}$$

$$\therefore 35 Q = 100 Q - 4758$$

$$\therefore 65 Q = 4758$$

$$\therefore \text{Exchange Rate} = 73.2 \text{ pence.}$$

$$\text{Cost of £1,000 bill on London} = \frac{1000 \times 240}{73.2} \text{ pesos}$$

$$\text{Answer:} = 3278.7 \text{ pesos.}$$

Appreciation or Depreciation.

An exchange rate or currency unit is frequently referred to as having appreciated or depreciated by a given amount per cent. This percentage appreciation or depreciation is calculated in exactly the same way as premium or discount by a comparison of the current value of the foreign unit with its normal (or mint par) value, both being expressed *in terms of the home currency*. The terms may therefore be regarded as interchangeable. Thus, if the premium on the dollar in London is 4 %, the New York exchange may be said to have appreciated to the extent of 4 %.

Example 19.—The Franc in London.

The franc in London moves from 25 to 125. What is the percentage depreciation?

Solution.

The rate is quoted in foreign currency,

$$\therefore \text{Percentage depreciation} = \frac{125 - 25}{125} \times 100$$

$$\text{Answer:} = 80 \%$$

Example 20.—Sterling and the Dollar.

Exchange between London and New York moves from 4.8668 to 4.695. What is the percentage depreciation of sterling in New York and the percentage appreciation of the dollar in London?

Solution:

(a) **STERLING IN NEW YORK.**

$$\text{Percentage depreciation of Sterling} = \frac{4.8668 - 4.695}{4.8668} \times 100$$

$$\text{Answer} = 3.5 \%$$

(b) **THE DOLLAR IN LONDON.**

$$\text{Percentage appreciation of the Dollar} = \frac{4.8668 - 4.695}{4.695} \times 100$$

$$\text{Answer:} = 3.7 \%$$

Calculation of the Premium on Gold.

*Example 21.—*Suppose £1 is equivalent in normal times to 20 gold dollars of a certain country, but that this country has an inconvertible paper currency, and that gold is at a premium of 200 per cent.

This means that 100 gold dollars are equal to 300 paper dollars,

$$\therefore 1 \text{ gold dollar} = \frac{300}{100} = 3 \text{ paper dollars.}$$

$$\therefore \text{If } £1 = 20 \text{ gold dollars,}$$

$$£1 = 20 \times 3 \text{ paper dollars} = 60 \text{ paper dollars.}$$

Or 1 paper dollar is worth 4d. only, instead of being equal to the normal 1s.

\therefore To obtain 60 paper dollars in that country £1 must be paid or sent from England.

Example 22.—

Mint Par between England and Turkey = Pstrs. 110 per £1.

Premium on gold in Turkey = 810 %.

∴ 100 gold pstrs. = 910 paper pstrs.

∴ 1 gold pstr. = $\frac{910}{100}$ paper pstrs.

But £1 = 110 gold pstrs.

∴ £1 = $\frac{110 \times 910}{100}$

= 1,001 paper piastres.

Example 23 —If gold is at a premium of 810 % in Turkey, what is the discount at which the paper piastre stands?

Solution:

At 810 % premium 100 gold pstrs. = 910 paper piastres.

∴ Discount at which paper piastre stands = $\frac{(910-100) 100}{910} = 89 \%$ approx.

Example 24.—If the ratio between the Argentine paper peso (the circulating medium within the country) and the gold peso is legally fixed at 44 c. gold = 1 peso paper, what is the premium on gold?

Solution:

44 pesos gold = 100 pesos paper.

∴ 100 pesos gold = $\frac{100 \times 100}{44}$ pesos paper.

= 227·27 pesos paper.

Premium on gold = 127·27 per cent.: *Answer.*

Miscellaneous Problems.

Example 25.—A broker in London bought a cheque on Melbourne at $2\frac{1}{2} \%$ discount, and sold it at $1\frac{1}{4} \%$ premium. Find the gain per cent. on the outlay. If the amount of the bill was £1,000, what is the actual gain if the broker borrows money from a bank at 4 % and one month elapsed between the purchase and sale?

Solution:

£100 bill on Australia costs £97 $\frac{1}{4}$

£100 bill on Australia sells @ £101 $\frac{1}{4}$

∴ Gain on £97 $\frac{1}{4}$ (outlay) = 3 $\frac{3}{4}$

∴ Gain on £100 (outlay) = $\frac{15}{4} \times \frac{100 \times 2}{195}$
= 3 $\frac{1}{4} \%$. *Answer (i).*

The £1,000 bill costs £975

The £1,000 bill sells for £1,012·5

∴ Actual gain = £37·5

Deduct interest on £975 for

1 month @ 4 % .. 3·25

Net gain .. £34·25

= £34 5s.: *Answer (ii).*

Example 26.—On February 5, 1920, you receive an order to remit bills drawn on Paris @ 48·50, Brussels @ 48·40, or Amsterdam @ 9·10, or the nearest rate. On going into the market the quotations are: Paris 48·25, Brussels 48·15, Amsterdam 8·72; which rate would you choose and why? (*Inst. of Bankers*, 1920.)

Solution:

All rates are worse for buying, as they have all fallen:—

Paris	Brussels	Amsterdam
$\frac{48 \cdot 25}{48 \cdot 50} = \cdot 994845$	$\frac{48 \cdot 15}{48 \cdot 40} = \cdot 994834$	$\frac{8 \cdot 72}{9 \cdot 10} = \cdot 958$

The Paris rate is therefore slightly nearer the limit than the Brussels rate, so bills on Paris should be purchased.

Example 27—The French short rate on London for commercial paper is 48·75. Give the long exchange (stamp duty $\frac{1}{2}$ ‰—Bank of England rate 6 %). The short exchange—London on Lisbon for Bank bills is 17½d. Give the three months' rate (Portuguese Bank rate $5\frac{1}{2}$ %—market rate of discount $5\frac{1}{4}$ %). (*Inst. of Bankers*, 1920.)

Solution:

French short rate --	..	..	..	48·75
Less 3 mos. interest @ 6 %	..	..	..	·73125
Stamp duty @ $\frac{1}{2}$ per mille	..	..	..	·024375
				<hr/>
				·755625
				<hr/>
				47·994375

Long rate on London 48 pence (approx.): *Answer (i).*

Lisbon short rate (Bank paper)	..	..	..	17·25
Less 3 mos. interest @ $5\frac{1}{4}$ % (market rate)	..	..	..	·2264
Stamp duty @ $\frac{1}{2}$ per mille	..	..	..	·0086
				<hr/>
				·235
				<hr/>
				17·015

Lisbon long rate = 17½ pence (approx.): *Answer (ii).*

Example 28.—(a) On 31st January, exchange quotations being

Copenhagen	..	..	..	22·03-22·07
Berlin	..	..	..	290-297,

at what rates would you have issued drafts so as to allow your bank a gross profit of $\frac{1}{8}$ % on both places. Rates to be quoted to the nearest manageable fraction, e.g., Copenhagen—nearest $\frac{1}{4}$ ore; Berlin—nearest 10 pfennige. (*Inst. of Bankers*, 1920.)

Solution.

The first rate—i.e., the selling price—must be used in both cases.

Copenhagen	..	..	..	22·03
Less $\frac{1}{8}$ %	..	..	..	·0275
				<hr/>
				22·0025

Rate to be charged = 22·00¼ kr. per £1: *Answer.*

Berlin	..	..	..	290
Less $\frac{1}{8}$ %	..	..	..	·3625
				<hr/>
				289·6375

Rates to be charged = 289·6 marks per £1: *Answer.*

- (b) For what amount would you have issued a draft on Berlin against payment of £769 8s. 2d.—rate as above?

Solution:

(1) Payment	..	.	..	..	..	£769·408
Rate	..	..	.	..	..	6·982
						<hr/> 153881·6
						61552·6
						6924·6
						461·6
						<hr/> 222820·4

Amount of draft = 222,820 marks. *Answer.*

Example 29.—Goods exported to the United States are invoiced at £550 15s. 11d., the *ad valorem* duty upon which is 30 per cent. Find value of goods in United States currency, making your calculation at the par rate of exchange. (*Inst. of Bankers, I, 1921.*)

Solution:

The U.S.A. importer will have to pay customs duty of 30 per cent. on the invoice value of goods. Therefore the total cost to him will be the invoice value plus 30 per cent, i.e.:—

£550 15s 11d	=	..	..	..	£550 796
Plus 30 per cent.	=	..	..	..	165 2388

Total cost = £716 0348 or £716 035 approx

The par rate of exchange is £1 = \$4·8666 ..

∴ Value in dollars of £716 035 is \$716·035 × 4·86666

716 035
<hr/> 6666·84
2864 14
572 82
42 96
4·30
·43
04

Answer: 83484 69

Example 30.—You hold in New York for a client U.S. \$1,200. He asks you to remit these to London by sterling demand draft and there to buy German marks for his account. Convert the dollars into sterling and the sterling into marks (rates 3 89¼ and 235). (*Inst. of Bankers, II, 1921.*)

Solution:

Amount of sterling purchased with

$$\$1,200 \times 3 \cdot 8925 = \frac{1200}{3 \cdot 8925} = £308 \cdot 285$$

Amount of marks = 308·285 × 235 = 72,446·975 marks: *Answer.*

Example 31.—You are asked to remit 5,000 francs from London to Paris at exchange of 53·90. Show the sterling cost of the French cheque, allowing ¼% of 1 % for your commission and ½ % for stamp. (*Inst. of Bankers, II, 1921*)

Solution:

$$\begin{array}{rcl}
 \text{Rate of exchange} & = & 53 \cdot 90 \\
 \text{Deduct charges } \frac{10}{16} + \frac{8}{16} \% = 1\frac{1}{2} \% & = & \frac{\cdot 06064}{53 \cdot 839} \quad 5000 \quad (92 \cdot 869 \\
 & & 154490 \\
 & & 468120 \\
 & & 374080 \\
 \text{Answer: } \pounds 92 \text{ 17s. 5d.} & & 510460
 \end{array}$$

Example 32.—A London banker has an order from Madrid to draw cheques upon one of the following centres at the rates indicated, or at best, viz.: Berlin 840, Paris 50·66, Amsterdam 11·68½, Lisbon 4½d. When he receives these instructions he finds the rates quoted are: Berlin 850½, Paris 51·16½, Amsterdam 11·70½, Lisbon 4½d. Upon which place should he draw in order to comply with his customer's instructions? (*Inst. of Bankers, II, 1922.*)

Solution:

All the rates have got worse for selling cheques; i.e., those in foreign currency have risen, whilst that in sterling has fallen. To determine the best rate for the operation, express all rates as proper fractions, and determine which is nearest to unity:—

$$\begin{array}{rcl}
 \text{Berlin} & \frac{840}{850\frac{1}{2}} & = \cdot 988 \\
 \text{Paris} & \frac{50 \cdot 66}{51 \cdot 16\frac{1}{2}} & = \cdot 990 \\
 \text{Amsterdam} & \frac{11 \cdot 68\frac{1}{2}}{11 \cdot 70\frac{1}{2}} & = \cdot 998 \\
 \text{Lisbon} & \frac{4\frac{1}{2}}{4\frac{1}{2}} & = \cdot 917
 \end{array}$$

The rate on Amsterdam has therefore depreciated least, and the cheques should be drawn on that city.

Example 33.—A customer wishes you to send 100,000 francs to Paris in Bank bills—50,000 at the short exchange and 50,000 francs at the long exchange. The short rate is 51·25½. Give the sterling cost of each bill (French bank rate 5½%, French market rate 5¼%). Include British and foreign bill stamps. (*Inst. of Bankers, II, 1922.*)

Solution:

In practical banking the cheque for 50,000 fcs. would be sold at the flat rate of 51·2 (51·2525 less brokerage and stamp fee).

$$\begin{array}{r}
 512)50000(976 \cdot 562 \\
 3920 \\
 3360 \\
 2880 \\
 3200 \\
 1280
 \end{array}$$

Cost of cheque = £976 11s 3d. *Answer.*

$$\begin{array}{rcl}
 \text{Amount of 3 mos. bill} & \dots & \text{Fcs. 50,000} \\
 \text{less French stamp at } \frac{1}{2} \text{ per mille} & \dots & 25 \\
 & & \text{Fcs. } \underline{50,025}
 \end{array}$$

Sight rate	=	51.2525	
3 mos. at $5\frac{1}{4}\%$	=	.67269	
		<u>51.92519</u>	(£963.405 = Present value.
		3292329	
		176817	
		21042	
		272	
Present value	.. .. .		£963.405
English stamp at $\frac{1}{2}$ per mille	.. .. .		.5
Commission at 1 per mille	.. .. .		.963
			<u>£964.868</u>

Cost of 3 mos. bill = £964 17s. 5d. *Answer.*

Example 34.—On February 9, 1923, exchange on Amsterdam was 11.84½ for £1, London on Paris 74 80 fcs. for £1. What was the florin value of 100 francs? (*Inst. of Bankers, II, 1923.*)

Solution:

$$\begin{aligned}
 &? \text{ florins} = 100 \text{ francs.} \\
 &74.80 \text{ francs} = \text{£1.} \\
 &\text{£1} = 11.84\frac{1}{2} \text{ florins} \\
 &= \frac{100 \times 11.845}{74.80} \\
 &\text{Answer} = 15.83\frac{1}{2} \text{ florins.}
 \end{aligned}$$

Example 35.—Gold in London is at present quoted in shillings and pence per ounce fine, and the price called the "American Parity" price, i.e., it is based on the rate of exchange for £1 gold in New York. Calculate the price of gold in London with exchange \$4.68½ (\$1 = 23.22 grams gold; 1 oz. = 480 grams gold). (*Inst. of Bankers, II, 1923*)

Solution:

$$\begin{aligned}
 &? \text{ £} = 480 \text{ grains fine gold.} \\
 &23.22 \text{ grams} = \text{£1.} \\
 &\$4.685 = \text{£1.} \\
 &= \frac{480}{23.22 \times 4.685} \\
 \therefore \text{Price per oz.} &= \text{£4.412} \\
 \text{Answer:} &= 88s. 3d. \text{ per oz.}
 \end{aligned}$$

Example 36.—Define the terms "to remit," "to draw." I have an order from a client to remit him cheques on New York at \$4.67½, and to reimburse myself by drawing on Buenos Aires at 43½d. Market rates are New York \$4.65½, Buenos Aires 43½d. Ought I to execute the order? The arithmetical working must be shown. (*Inst. of Bankers, II, 1923.*)

Solution:

To Remit means to purchase bills on the market and remit them abroad to a debtor or agent of the sender.

To Draw means to draw bills on a creditor or agent abroad with a view to selling them in the market on which the drawer is operating.

The New York market rate is lower than the limit and has therefore deteriorated for buying dollars. The rate on Buenos Aires is above the limit,

and as it is in pence, it has improved for selling dollars. If the order is to be executed the gain on selling must compensate for the loss on buying, hence :—

$$\begin{array}{rcl} \text{Worse rate, New York, } \frac{4.65875}{4.67875} & = & .9957 \\ \text{Better rate, Buenos Aires, } \frac{43.75}{43.625} & = & 1.0029 \\ & & \underline{1.9986} \end{array}$$

The order cannot therefore be executed.

Example 37.—From the following data calculate what rate should be given in New York for a 60 days' commercial bill on London for £120 15s. Demand rate \$4.68½, London Bank rate 3 %, Stamp duty ½ per cent. (*Inst. of Bankers, II, 1923*)

Solution:

$$\begin{array}{rcl} \text{Demand rate} & = & \$4.685 \\ \text{Less 63 days' int. at 3 \%} & = & .02426 \\ \text{(London terms)} & & \\ \text{Stamp duty } \frac{1}{2} \% & = & .00234 \\ & & \underline{\hspace{1cm}} .0266 \\ \text{Rate for 60 days' bill} & = & \underline{\underline{\$4.6584}} \\ \text{Say, } \$4.65\frac{3}{4} & : & \text{Answer.} \end{array}$$

Note.—Three days' grace must be allowed. The amount of the bill need not enter into the calculation of the rate.

Example 38.—The New York rate on Paris is quoted in dollars and cents per 100 francs. If exchange London on Paris be 92.80 and London on New York 4 25¼, what will be the New York rate on Paris in cents per franc? (*Inst. of Bankers, II, 1924.*)

Solution:

If London on Paris is Fcs. 92.80 to £1, and London on New York is \$4.25¼ to £1, then New York on Paris in cents to 1 franc will be :—

$$\begin{array}{rcl} ? \text{ c.} & = & \text{Fr. 1.} \\ \text{Fcs. 92.80} & = & \text{£1.} \\ \text{£1} & = & \$4.25\frac{1}{4}. \\ \$1 & = & 100 \text{ c.} \\ & = & \frac{4.2525 \times 100}{92.80} \\ \text{Answer:} & = & 4.58 \text{ cents per franc.} \end{array}$$

Example 39.—A banker in London purchases an exporter's bill for \$10,000 drawn on Buenos Aires at 42½d. He sends the bill to Buenos Aires with instructions to his correspondent to present for payment and remit the proceeds by T.T. to London less charges. Show (1) the sterling amount paid in London for the bill, and (2) the amount of the proceeds ultimately received in London from Buenos Aires in sterling. The T.T. rate at which the correspondent remits is 42¼d. Argentine stamp duty ½ %; correspondent's commission ¼ %. (*Inst. of Bankers, II, 1924.*)

Solution:

If it is assumed that the bill is for \$10,000 *gold*, then—

The sterling amount paid in London is \$10,000 at 42½d. per \$

$$= 42 \cdot 125d. \times 10,000$$

$$= 421,250d.$$

$$\text{Answer (1):} = \text{£1,755 4s. 2d.}$$

Net proceeds received in Buencs Aires

$$\text{Less Stamp duty } \frac{1}{2}\% = \$5$$

$$\text{Agent's commission } \frac{1}{4}\% = \$25$$

$$\underline{\$30}$$

$$= \$10,000 - \$30 = \$9,970.$$

The sterling proceeds received in London are therefore \$9,970 at 42½d. per \$.

$$= 42 \cdot 25d. \times 9,970.$$

$$= 421,232 \cdot 5d.$$

$$\text{Answer (2):} = \text{£1,755 2s. 8½d.}$$

If the bill is payable, as is usual, in *paper* pesos, the two sterling amounts must be decreased to 44 % (see Example 2, page 500), giving—

$$\text{Answer (1): } \text{£772 5s. 10d.}$$

$$\text{Answer (2): } \text{£772 5s 2d}$$

Example 40.—A customer offers you a sight draft drawn on a New York bank and asks for a draft on Milan for lire 124,774·88 in exchange. The rates current are: New York T.T. 4 85½, New York cheque 4·85¾, Italy cheque 121½. Calculate how many dollars you would require. Allow a profit for yourself of ½ cent in the New York rate and ¼ lira in the Italian rate. (*Inst. of Bankers, I, 1926.*)

Solution:

The Milan draft is sold at the cheque rate, 121½, less commission ¼ lira, i.e., at 121¼, yielding in sterling

$$\text{£ } \frac{124,774 \cdot 88}{121 \cdot 25}$$

For this amount the customer must give a dollar draft at the New York cheque rate 4·85¾, plus the bank's commission of ½ of a cent, i.e., at 4·85¾.

$$\therefore \text{Amount of draft in dollars} = \frac{124,774 \cdot 88 \times 4 \cdot 85875}{121 \cdot 25}$$

$$\text{Answer:} = \$5,000.$$

Note.—In both transactions, the rule "Buy high, sell low" applies, so the bank's commission is deducted in *selling* lira, and is *added* in *buying* dollars.

Example 41.—A client places £754 13s. 11d. with his London bankers, with instructions to remit the equivalent by mail to Capetown. At the time exchange on that city was quoted ½ % premium for mail transfers. Subsequently it was found that the funds were not required in South Africa and the remittance was returned telegraphically. At this time telegraphic remittances South Africa to London were quoted ½ % premium. What would be the net amount received back by the original remitter? (*Inst. of Bankers, I, 1926*)

Solution:

If exchange on Capetown is at $\frac{1}{2}$ % premium,
 $\text{£}100\frac{1}{2}$ in London purchases $\text{£}100$ in Capetown.
 $\therefore \text{£}754\cdot69583$ in London purchases $\frac{100 \times 754\cdot69583}{100\cdot125}$

If South Africa quotes London at $\frac{1}{2}$ % premium,
 $\text{£}100\frac{1}{2}$ in South Africa purchases $\text{£}100$ in London.
 $\therefore \text{£} \frac{100 \times 754\cdot69583}{100\cdot125}$ in South Africa purchases $\frac{\text{£}100}{100\cdot5} \times \frac{100 \times 754\cdot69583}{100\cdot125}$
in London
 $= \text{£}750\cdot004$
Answer: £750.

Example 42—Convert 11,683 09 Argentine paper dollars into sterling on the basis of a gold rate of $46\frac{1}{4}$ d., the paper rate being 44 % of the gold rate. (*Inst. of Bankers, I, 1927.*)

Solution

Argentine rate (gold) = $46\frac{1}{4}$ d.
100 paper dollars = 44 gold dollars.
 $\therefore \frac{11,683\cdot09 \times 46\cdot6875 \times 44}{240 \times 100} = \text{Sterling equivalent required}$
 $= \text{£}1,000: \text{Answer.}$

Example 43.—If American currency be at a premium of $\frac{1}{4}$ % in Montreal, calculate (a) the rate, (b) the amount, a Canadian banker should pay for a 60 days' sight bill on London for $\text{£}5,000$ New York demand rate on London is $\$4\ 84\frac{1}{2}$, London discount rate 5 %, and profit to be made for the Montreal banker $\frac{1}{4}$ % (include stamp duty). (*Inst. of Bankers, II, 1927.*)

Solution:

(a) $\$100\frac{1}{4}$ in Montreal will buy $\$100$ in New York.
New York demand rate on London = 4·845
 \therefore Canadian demand rate on London = $\frac{4\cdot845 \times 100\cdot25}{100}$
 $= \$4\cdot8571125$

Less Interest for 63 days at 5 % = .041917
Profit at $\frac{1}{4}$ % = .012143
English stamp duty, say, $\frac{1}{2}$ ‰ = .002429
 $\underline{\hspace{1.5cm}}$
 $\$4\cdot8006235$

Say, $\$4\cdot80$ per £ *Answer (a).*

(b) \therefore Actual cost of bill = $\$4\cdot80 \times 5,000$
 $= \$24,000. \text{Answer (b).}$

Example 44.—Given a spot rate of exchange, London on Paris, of $120\frac{1}{2}$, calculate the three months' forward rate of exchange. (Rate of interest in London is 5 % and in Paris $7\frac{1}{2}$ %.) (*Inst. of Bankers, II, 1927.*)

Solution:

London interest rate, 5 % per annum.

Paris interest rate, $7\frac{1}{2}$ % per annum.

∴ Money earns $2\frac{1}{2}$ % per annum more in Paris than in London.

∴ The three months' forward rate should be at a discount of approx. $\frac{5}{8}$ %.

$$\begin{aligned}\therefore \text{Three months' forward rate} &= \frac{120 \cdot 5 \times 100 \cdot 625}{100} \\ &= 121 \cdot 253125 \\ &= 121 \cdot 25 \text{ fcs. per } \pounds, \text{ or}\end{aligned}$$

75 cents over spot: *Answer.*

Example 45.—On February 1, 1927, an American banker sends the following telegram to his London correspondent:—

“Against dollars I am a buyer of lire 500,000; limit 4·28.”

When the wire was received, the London quotation for lire was 114, while dollars were quoted \$4·85.

On the assumption that the London banker executes the order, what would be the profit or loss on the transaction? (*Inst. of Bankers, II, 1927.*)

Solution:

If the London banker executes the order at the limit specified, i.e., \$4·28 per 100 lire, he receives for 500,000 lire

$$\pounds \frac{500,000 \times 4 \cdot 28}{100} = \$21,400$$

	<p>£</p>	<p>s.</p>	<p>d.</p>
These dollars he sells in London for $\pounds \frac{21,400}{4 \cdot 85}$	..	..	= 4,412 7 5

He covers his sale of lire by purchase of 500,000 lire

at 114, costing $\pounds \frac{500,000}{114}$	= 4,385 19 4
---	----	----	----	--------------

∴ Profit (excluding brokerage and cables)	=	£26 8 1
---	----	----	---	---------

Example 46.—You receive from a foreign correspondent a three months' sight bill drawn on a London firm. The instructions are to present it for acceptance, and, when accepted, to get the bill discounted on the London market, the proceeds to be placed to the credit of your correspondent.

The bill is for £100 13s. 4d. The discount rate in London is $5\frac{1}{2}$ %.

[Describe briefly how you would deal with bill, and] show the amount with which you would ultimately credit your correspondent. (Days of grace and stamp duty to be taken into account.) (*Inst. of Bankers, II, 1927.*)

Solution:

It may be assumed that the bill has 95 days to run when discounted.

$$\therefore \text{Discount} = \pounds \frac{100 \cdot 667 \times 95 \times 11}{365 \times 200} = \pounds 1 \cdot 44106$$

Stamp, 2s.	= 1
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∴ Total deductions	=	£1·54106
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$$\begin{aligned}\therefore \text{Total net proceeds} &= \pounds 100 \cdot 667 - 1 \cdot 54106 = \pounds 99 \cdot 12594 \\ &= \pounds 99 \text{ 2s. 6d: } \textit{Answer.}\end{aligned}$$

Example 51.—The following telegraphic transfer rates of exchange are quoted:—

New York on London, \$4·88.
 New York on Paris, \$3·93 (i.e., for 100 francs).
 Paris on London, 124 francs.
 London on New York, \$4·87½.

From these rates work the following arbitrage operation, neglecting cable charges and commissions:—

Sell £10,000 in New York; with the dollar proceeds, buy exchange on Paris. Sell the franc equivalent for sterling; with the sterling buy dollars on New York. Finally, show what the dollar profit or loss on the whole series of operations would be. (*Inst. of Bankers, II, 1928.*)

Solution:

$$\begin{array}{rcl}
 ? \$ & = & £10,000 \\
 \text{If } £1 & = & \$4\cdot88 \\
 \$3\cdot93 & = & 100 \text{ francs} \\
 124 \text{ francs} & = & £1 \\
 £1 & = & \$4\ 87375 \\
 \therefore \$ \frac{10,000 \times 4\cdot88 \times 100 \times 1 \times 4\cdot87375}{1 \times 3\cdot93 \times 124 \times 1} & = & \frac{23,783,900}{487\cdot32} = \$48,805\cdot50 \\
 \text{Amount of dollars originally realised for } £10,000 \text{ at } 4\cdot88 & = & \frac{48,800\ 00}{5\cdot50}
 \end{array}$$

∴ Profit (neglecting cable charges and commissions)

= \$5 50 . *Answer*

APPENDIX

ABBREVIATIONS USED IN EXCHANGE AND BANKING

A.	Anna (Indian coinage)	B/L	Bill of Lading
@	At; for; to; from	B.N.	Bank Note
A.A.R.	Against all risks	B/N	Bill Negotiated
A/C	Account Current	B.O.	Branch office; Buyer's option
a/c or acct.	Account	Bona fide	In good faith
Acc.	Acceptance, accepted	Bot.	Bought
Acct.	Accountant	B/P	Bill Payable
Ackgt.	Acknowledgment	B.P.B.	Bank Post Bill
A.D.	Anno Domini (In the year of our Lord)	B/R	Bill Receivable
a.d. or a/d	After date	Brit.	British
Adv.	Advice	B.S.	Balance Sheet
Ad val.	Ad valorem	B/S	Bill of Sale
Agt.	Agent	C/-	Currency; coupon
Agst.	Against	c.	Cent; cents; centime; centavo; copeck
Amt.	Amount	C/A	Capital Account
Ans.	Answer	C.A.	Chartered Accountant
A/o	Account of	Cap.	Capital; Capitulum (Chapter)
A/or	And, or	Cash.	Cashier
A.P.	<i>à protester</i> (to be protested —bills)	C.B.	Cash Book
Approx.	Approximate	C. and D.	Collection and Delivery
A/S	Account Sales	C/d	Carried down
a/s	At sight, after sight	C.d.	Cum dividendo (with dividend)
as.	Annas	C. and F.	Cost and Freight
Av.	Average	Cent.	Centum (100); Centime; Centigrade; Centavo
Av. or Avoir.	Avoirdupois	Cert.	Certificate
A/v	Ad valorem (according to value)	C/f	Carried forward
Bal.	Balance	Cert. Inv.	Certified Invoice
B.B.	Bill Book	C.H.	Custom House; Clearing House
B.C.	Bills for Collection	Ch.	Chapter
B/D	Bank Draft; Bill Discounted	Ch. fwd.	Charges forward
B.Dt.	Bill Discounted	Chq.	Cheque
B/E	Bill of Exchange	C.I.F.	Cost, Insurance and Freight
B. of E.	Bank of England	Cml.	Commercial
B/f	Brought forward	C/N	Credit Note; Consignment Note; Circular Note
Bk.	Bank; Book		
Bkg.	Banking		
Bkpt.	Bankrupt		

Co.	Company; County	E.E.	Errors Excepted
C.O.	<i>Compte ouvert</i> (open account)	E/I	Endorsement Irregular
C/O	Cash Order (banking)	Eng.	England
c/o	Care of; carried over	Eq.	Equivalent
C.O.D.	Cash on Delivery	Ex.	Exchange
Com.	Commercial; Commission	Exch.	Exchange; Exchequer
Con.	Contra (against)	Ex cp.	Ex coupon
Con. cr.	Contra credit	Ex div.	Without dividend
Con. inv.	Consular invoice	Ex In.	Without Interest
Cont.	Contract; Continent	Ex n.	Ex new (without the right to new shares)
Contra	Against	Exs.	Expenses
Coy.	Company	f.a.s.	Free alongside ship
C/P	Charter Party; Custom of Ports	Fb	Francs belges, i.e., Belgian francs
Cr.	Credit; Creditor	f. fc.	Franc
ct.	Cent; credit; current	Fcs. (fcs.)	Francs
cts.	Cents	F.G.A.	Foreign general average
Cum d/-	(or <i>div.</i>) With dividend	Fig.	Figure
Curt.	Current	Fl.	Florn(s)
C.W.O.	Cash with order	Fo; Fol.	Folio
Cwt.	Hundredweight	F.O.B.	Free on board
Cy.	Currency	f.o.c.	Free of charge
D.	Denarii (pence): 500	f.o.r.	Free on rail
D/A	Days after Acceptance, Documents Against Acceptance; Deposit Account	For.	Foreign
D.B.	Day Book	f.p.	Fully paid
D/C	Deviation Clause	F.P.	Fire Policy
D/D	Demand Draft	F.P.A.	Free of Particular Average
d/d	Days after date, Days' date	Fr.	French; Franc
Deb.	Debenture	Frt.	Freight
Dept.	Department	Fs.	Francs Swiss
Dft.	Draft	g.	gramme
Dis.	Discount	G.A.	General average
Div.	Dividend; Division	G.B.	Great Britain
D/N	Debit Note; Delivery Note	G.M.T.	Guaranteed Mail Transfer
D/O	Delivery Order	Gov.; Govt.	Government
Dols.	Dollars	gr.	grain; gross
D/P	Documents against Payment	grs.	grains; gross
Dr.	Debtor; Drawer	Gs.	Guineas
D/R	Deposit Receipt (banking)	H.M.C.	His Majesty's Customs
d/s	Days' sight	H.M.S.	His (or Her) Majesty's Service
D/W	Dock Warrant	H.O.	Head Office
Dwt.	Pennyweight	I.B.	Invoice Book
Dy., D/y	} Delivery	Ier	First (French, premier)
Dely.		I/I	Indorsement Irregular
E. and O.E.	Errors and Omissions Excepted	Ins. or Insce.	Insurance
e.d.	Ex Dividend	Inst.	Instant
		Int.	Interest
		In trans.	In transitu (in transit)
		Inv.	Invoice

IOU	I owe you	m/s	Months' sight (i.e., months after sight)
Iss.	Issue	M/T	Mail transfer
J/A	Joint Account	N/A	No advice (banking), New Account (Stock Exchange)
Kč.	Czecho-Slovakian kronen	N.A.	Non-acceptance
Kg.	Kilogramme	N/E	No Effects
Kilo; Kilog.	Kilogramme	N/F	No funds
Kilos.	Kilogrammes	N/m	No mark
Kr.	Kreutzer (coin); Krone, Krona; Kronen	N/N	No Noting
L	Lira, or lire	N/O	No Orders (banking)
£	Pound(s) Sterling	No.	Number
£E.	Pound(s) Egyptian	Nom.	Nominal
£P	Pound(s) Peruvian	Nom. Cap.	Nominal Capital
£T.	Pound(s) Turkish	Nostro	Our account abroad
L/A	Letter of Authority	N.P.	Notary Public; No protest
L/C	Letter of Credit, London Cheque	n/p	Net proceeds
Ld.	Limited	Nos.	Numbers
Ldg., and dely.	Landing and delivery	N.R.	No risk (insurance)
Led.	Ledger	N/S	Not sufficient (banking)
£g	Pounds sterling	N.S.	New Style; New Series
Li	Lira, Lire	o/o	per cent
L.I.P.	Life Insurance Policy	o/oo	per mille
Lit	Lire (plural)	O/a	On account of
£ s. d.	Libra, soldi, denari (pounds, shillings, pence)	Oc. B/L	Ocean Bill of Lading
Ltd.	Limited	O/d	On demand
Loro	Their account	O/D	Overdraft
M.	Thousand, Monsieur	O.P.	Open Policy (insurance)
-/m.	Thousand (as 20/m)	O.S.	Old style
m.	metre; mark(s)	Oz.	Ounce
M/a	My account	P/A	Power of Attorney, Particular average
M/C	Marginal Credit	P/A	Private Account (book-keeping)
M.D.	Memorandum of Deposit	P. and L.	Profit and Loss
m/d	Months' date (i.e. Months after date)	P/C	Price Current; Petty Cash
Mdse.	Merchandise	p.c.	Per Cent
Mem.; Memo.	Memorandum	P.C.B.	Petty Cash Book
Mil.	Milreis	Pd.	Paid
Min. B/L	Minimum Bill of Lading	Per ann.	Per annum, by the year
M.I.P.	Marine Insurance Policy	Per cent.	Per centum (by the hundred)
Mks.	Marks (coin)	Per contra	On the other side
M/L	Moneda Legale (page 473)	Per pro	Per procuracionem (on behalf of)
M/N.	Moneda Nacional (page 473)	pf.	pfennig or pfennige (plural)
M.O.	Money Order	Per Mille	per thousand
M.O.O.	Money Order Office	Pm.	Premium
Mo.	Month	P/N	Promissory Note
Mos.	Months	P.O.	Post Office, Postal Order
M/R	Mate's receipt		

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P.O.D.	Pay on Delivery	Std.	Standard
P.O.O.	Post Office Order	Stg., Ster.	Sterling
p.p.	Per procuration	T.	Tons; Tare
Prof.	Preference or preferred	thl.	Thaler (German coin)
p.pro	Per procuration	Thro' B/L	Through Bill of Lading
Pro forma	As a matter of form	T.M.O.	Telegraph Money Order
Pro tem.	Pro tempore; for the time being	T.O.	Telegraph Office
Prox.	Proximo; of the next month	Tonn.	Tonnage
Pta; psta	Peseta (Spanish coin)	T/q.	Tale quale; <i>tel quel</i> (exchange)
P.X.	Please exchange	T.T.	Telegraphic transfer
qy.	query	U.K.	United Kingdom
R.	Rupees; Rouble	Ult.	Ultimo (of the last month)
R/D	Refer to Drawer (banking)	Via	By way of
Re.	Rupee	Vol.	Volume
reg.; regd.	Registered	Vostro	Your account with us
Ro.	Rouble(s)	v.v.	Vice versa
R.P.	<i>Réponse payée</i> (reply paid)	W.P.A.	With particular average
Rs.	Rupees	Wt., wgt.	Weight
Rx.	Ten rupees	W/W	Warehouse Warrant
\$	Dollars	x.c.	Ex coupon
s.	Shilling; sou	x.d.	Ex dividend
s/c	<i>son compte</i> (his or her account)	x. in.	Ex interest
Sh.	Share; shilling	x. new	Ex new shares
Shipt.	Shipment	zl.	Zloty
Shr.	Share	&	And
S/N	Shipping Note	&c.	And the rest, and so on
Sov.	Sovereign	#	Number(ed)
Sovs.	Sovereigns		
S.P.	Supra Protest		
St.	Sterling		

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